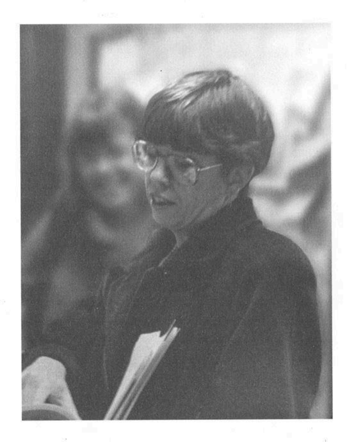
SAHASRAM ATI SRAJAS



Sahasram Ati Srajas

Indo-Iranian and Indo-European Studies
in Honor of

Stephanie W. Jamison

edited by
Dieter Gunkel
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Michael Weiss



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Table of Contents

SAHASRAM ATI SRAJAS

Preface

Best of teachers, staunch colleague, dear friend: Stephanie W. Jamison is not only one of the world's leading Indo-Iranists but someone for whom the presentation of a festschrift, though indubitably a ritual act, is anything but rote. In every aspect of her life she consistently finds and brings out the extraordinary, sometimes in the seemingly ordinary, and we hope that the contents of this volume will be seen as a testament to both her scholarship and her person.

A graduate of Vassar, where she majored in Classics, and then Yale, where she earned her Ph.D. in Linguistics, Stephanie is an Indo-Europeanist, Indologist, and Iranist of the first order. Like the rhinoceros, truly interdisciplinary scholars can be hard to categorize, a fact that hidebound administrators do not always appreciate; indeed, university officials took longer than they should have to bestow on Stephanie the official recognition that her students and colleagues long knew she deserved. Now Distinguished Professor of Asian Languages and Cultures at the University of California, Los Angeles, where she is also a member and sometime Chair of the interdepartmental Program in Indo-European Studies, she previously taught at Yale (in the Department of Linguistics) and Harvard (in the Departments of Linguistics and of Sanskrit and Indian Studies). Her arrival at UCLA in 2002 was a transformative event for her home department, which now has world-class coverage of Indic literature and culture, and especially for her true home, PIES, whose doctoral students emerge as masters of Vedic language and Sanskrit historical grammar, as well as having had the opportunity to pursue high-level classes and independent research projects on Avestan, Old Persian, Middle Indic, and Indo-Iranian and Indo-European poetics.

Stephanie's courses on everything from elementary Sanskrit to historical syntax are characterized by the same features that make her scholarship instantly recognizable: an insistence that solutions must make sense both linguistically and philologically, great stylistic clarity, and an unceasing sense of merriment. Major themes that have occupied her in forty years of deeply original work include animals, riddles, and sex; law and ritual; morphologically baroque verbal forms; syntactic change; women and their grammar; the bright light a knowledge of Sanskrit can shine on Greek epic and tragedy; and issues of translation. Attention to all of these has culminated in her and Joel P. Brereton's three-volume masterpiece of 2014, *The Rigveda: The Earliest Religious Poetry of India* (Oxford University Press), the first complete rendering of the *R̥gveda* into English in more than a century. Thanks to the unpretentious style with which Stephanie and Joel introduce and elucidate these 1,028 very difficult hymns, what we have is more than a monument of learning that now lies open before every

Indologist and Indo-Europeanist (all who have received instruction from Stephanie at her desk can picture her with other such monuments flopped around her, in a way that teaches you exactly what such books are for); it will also be for generations the go-to reference work for students and scholars in fields from comparative literature to religious studies.

As Stephanie reminded us in her Presidential address to the American Oriental Society in 2010 (subsequently published in the Society's journal, *JAOS* 131 [2011]), texts have secret lives. When it comes to early Indic texts, no one is better at revealing the mysteries: Stephanie's readings often involve a simultaneous display of phonological, morphological, syntactic, and contextual analysis that is virtuosic and yet presented in a down-to-earth manner. If, in class, she wishes to impress on you a particular point, she pauses, looks at you from under her eyebrows, and communicates it as if she were letting you in on a slightly scandalous secret. She has a similar look when forced to listen to ideas that she thinks are just plain silly, and if you are or were her student—in which case she has all the time in the world for you and will patiently help you locate and understand what is good in what you have done—then you work hard to avoid being the object of this ironic gaze.

It is not only her students who benefit from Stephanie's critical acumen. As Associate Editor for South and Southeast Asia and (since 2010) Editor-in-Chief of *JAOS*, she has wielded her red pen with modern efficiency as well as timeless skill. We would also like to highlight her seventy-five penetrating book reviews, whose vehicles are *Indo-Iranian Journal*, *International Journal of Hindu Studies*, and *Kratylos*, to name a few besides *JAOS*: the reviews unfailingly identify the strengths and weaknesses of the works under discussion, suggest directions for future research, and evince her trademark sense of humor.

No paragraphs about Stephanie could leave out her legendary hospitality. One of her books has this noun in its title, but food, drink, and cheerful company are for her far more than academic matters. The annual "Dead of Winter" party at 10 Locke Street in Cambridge, MA has given way to the bash that follows the Indo-European conference each fall in Los Angeles, a part of the world where "dead of winter" has no meaning; the great black cat Fergus has given way to such other great cats as Puduhepa; but the atmosphere chez Stephanie remains as it ever was—joyous, feline, carnivalesque.

Two contributors passed away last year: Lisi Oliver, whose laugh-out-loud funny tribute to Stephanie captures the sense of play in her brilliant, synoptic readings, and Martin West, whose opening paragraph speaks of Stephanie as "the warm-hearted recipient of this volume." Among those who for one reason or another could not contribute, we wish to mention two: Anna Morpurgo Davies, who very much regretted that the illness that would fell her in 2014 prevented her from producing a paper, and Calvert Watkins, Stephanie's beloved husband, who (we are so glad to be able to say) learned that a festschrift was in the works shortly before his death in 2013.

This crown is for Stephanie, with great respect and great love.

The Editors, February 2016

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The Role of Vassal Treaties in the Maintenance of the Hittite Empire*

GARY BECKMAN

At its zenith in the late fourteenth century BCE the Hittite state, known to scholars as Ḫatti,[1] had expanded from its core within the bend of the Kızıl Irmak (Red River) in central Anatolia as far south as Damascus in Syria. For the most part, this empire had grown not through annexation but through agglomeration: direct rule of a newly subjugated region was usually returned to a member of the defeated local dynasty, who would henceforth govern as a sworn vassal of the Hittite Great King. However, an exception to this practice was made in the case of Carchemish, a city located at the most important crossing of the Euphrates River in northern Syria. Here the founder of the Hittite imperium, Šuppiluliuma I,[2] had installed a cadet line of his own royal family, whose members would serve loyally as viceroys of the Great King/Emperor (*T/Labarna*) in his southern territories until the collapse of the entire system at the end of the Bronze Age, after which, it seems, this lineage for a time claimed the imperial title for themselves.[3]

The establishment of a trustworthy deputy in the region was but one of the measures adopted by the Hittite crown to overcome the difficulties posed to its administration by the great distances that stretched between the capital Ḫattuša (modern Boğazköy/Boğazkale, about a three-hour drive east of Ankara) and the Syrian dependencies. The problem was indeed formidable: even a swift messenger would need several weeks to make the journey to Syria, and the deployment of a slow-moving military force from the motherland required months. Furthermore, heavy snows normally blocked the mountain passes in Anatolia from late autumn through early spring.

*It is my great pleasure to contribute this essay to a volume in honor of my good friend Stephanie Jamison, who has been a colleague since we two formed an "odd couple" as the sole students in a seminar on Indo-European phonology and morphology taught by the late lamented Warren Cowgill at Yale University in 1971–2.

[1] The natives seemingly referred to their polity as "(the Land of) Ḫattuša"; see Kammenhuber 1969:125 and Klengel 1999:192 n. 244.

[2] For a narrative of the conquests of this king, see Bryce 2005:154–89, and cf. now Richter 2008 for the new perspective on these events provided by the texts recently excavated at Qatna.

[3] See Hawkins 1988.

The king of Carchemish certainly had troops at his command,[4] but these would have been drawn largely from the regional vassal polities themselves. The Hittite garrisons posted in the chief cities of certain dependencies were little more than bodyguards for the local kings, who risked unpopularity with their subjects for doing the bidding of Ḫatti and collecting her tribute. Thus a Syrian ruler contemplating throwing off the Hittite yoke could reckon with a significant breathing space before he would face a realistic threat of significant physical coercion from his betrayed overlord.

Yet we know of only one major—and to be sure unsuccessful—rebellion against Hittite domination in Syria in this period, and this uprising took place very soon after the establishment of the empire, upon the accession to the throne of Ḫatti of an untested youth, Muršili II.[5] How did the Hittites manage to control their vassals so effectively? First and foremost they accomplished this through a system of diplomacy based upon relations codified by treaty. The regulation of the interaction of states by treaty was not particularly unusual in the ancient Near East. A couple of treaty documents are known already for the later third millennium: one drawn up between the city-state of Ebla and a Syrian neighbor in the twenty-fourth century and another concluded by Naram-Sin of Akkad with a ruler of Elam during the following century.[6]

Several texts of this genre dating to the early second millennium have been recovered from Mesopotamian and Syrian sites. The latest attested ancient Near Eastern treaties are those imposed by Assyrian kings on their Syrian and Iranian vassals in the eighth and seventh centuries. But it was the Hittites who composed well over half of the cuneiform treaties known to date.[7] We currently have the texts of approximately forty such documents from Ḫatti, and many more treaties whose texts have not been recovered are mentioned in Hittite records of other types, such as royal annals and international correspondence. Most of Ḫatti's treaties were composed in the contemporary diplomatic language of Akkadian, although the native Hittite tongue was also sometimes employed, particularly in agreements with vassals located in western Anatolia, where knowledge of Akkadian was probably absent.[8]

In both languages these documents were designated by a pair of terms which may be translated as 'binding and oaths' (Hitt. ***išḫiul*** and ***lengaiš***, Akk. ***rikiltu*** or ***riksu*** and ***mamītu***). This expression refers to the two most important elements of these records:

[4]For example, Šarri-Kušuh of Carchemish led forces from Syria in support of his brother Muršili II in confronting a revolt in Anatolia during the latter's third regnal year. See KUB 14.15 ii 7–10 (Laroche 1971: No. 61), ed. Goetze 1933:48–9.

[5]The great rebellion and its suppression are described in the "Ten-Year Annals of Muršili II" (Laroche 1971: No. 61.I), translated by Beal (2000).

[6]On the treaty tradition in the cuneiform world, see Beckman 2006.

[7]The better preserved of these texts are translated in Beckman 1999. Less satisfactory renderings can also be found in Kitchen and Lawrence 2012, on which see Beckman 2014.

[8]In the Hittite-language letter sent from Arzawa and found in the diplomatic archive of the pharaohs Amenophis III and Amenophis IV/Akhenaten at Tell el-Amarna, the Anatolian scribe instructs his Egyptian colleague: "The tablets which they will bring, always write in Hittite" (EA 32:24–5). See Hawkins 2009:77.

the stipulations ('binding') and the oaths by which the contracting parties invoked the gods as witnesses and guarantors of these provisions.

Under Muršili II, the Great King whose diplomatic activities are best attested, treaties were issued for Arzawa and several other states in western Anatolia, as well as for Kinza (Kadeš), Amurru, and Ugarit in Syria and probably for other subject areas as well. The vassal treaty was composed by the chancellery of the Hittite monarch and presented to the subordinate, who was obliged to swear in the presence of various deities that he would observe its provisions. Thus the text was simultaneously the 'binding' of the Great King and the 'oaths' of the vassal. One treaty includes the explicit statement: "These provisions are by no means reciprocal. They issue from Ḫatti."[9] Therefore it is not surprising that in most instances the vassal alone—and not the overlord—swore the oaths.[10]

The text of the treaty was engraved in cuneiform upon a tablet of metal (sometimes of silver but more often of bronze) and delivered to the junior partner. As is the case with so many metal objects from antiquity, the great majority of these tablets have disappeared. In fact, with a single exception,[11] modem scholars must be content with ancient clay "file copies" from the diplomatic archives. Most of these documents follow a similar pattern:[12]

1. *Preamble:* Here we find the name, titles, and genealogy of the Hittite Great King. The vassal is not yet mentioned.

2. *Historical Prologue:* This section sets forth the previous course of relations between Ḫatti and the vassal state, and in particular between the individual Hittite king and the subordinate in question. Here it is demonstrated just why the latter should be loyal to Ḫatti: either because he had been favored by the Great King—receiving, say, military assistance—or because the Great King had not meted out the severe punishment the vassal had richly deserved. For example, note this excerpt from the prologue to the treaty of Muršili II with Kupanta-Kurunta of the land of Mira in western Anatolia: "And when your father Mašḫuiluwa offended against My Majesty, were not you, Kupanta-Kurunta, a son to Mašḫuiluwa? Although you were in no way an offender, ⟨could you not have been punished?⟩ I did not take the household of your father or the land away from you. I did not make someone else lord. I gave the

[9]Treaty between Muwattalli II and Alakšandu of Wiluša (the Troad) (Laroche 1971: No. 76), §16, translated by Beckman (1999:91).

[10]For a different view, see Altman 2003, but in any case, Christiansen (2012:524–7) demonstrates that the very involvement of the gods in the procedure obliges the Hittite king as the instigator of the oath to keep up his side of the agreement.

[11]Published in Otten 1988.

[12]This schema was recognized already by Korošec (1931). Von Schuler (1965) considered a number of treaty documents to be aberrant in structure (*Sonderformen*), but it seems that the strong similarity in organization evidenced by the texts considered by Korošec is due primarily to their having been composed by a handful of scribes over a relatively short period, perhaps only one or two generations (reigns of Muršili II and Muwattalli II). Documents from before and after this time display a good deal of formal variation from Korošec's "template."

household of your father and the land back to *you*, and I installed *you* in power in the land. And as I, My Majesty, have not in the past mistreated you in any way, in the future, Kupanta-Kurunta, [protect] me, My Majesty, as overlord."[13]

3. *Provisions:* These stipulations of course vary greatly from text to text, but the primary duties imposed upon a vassal are the payment of tribute (Hitt. *argamannu*, Akk. *mandattu*) in silver or other precious metals, foodstuffs, manufactured goods, etc. (interestingly, payments are to be made not only to the Great King and Great Queen but also to various high officials of the Hittite state and to the most important deities of the empire); the providing of military assistance when required, both in connection with imperial campaigns in the vassal's neighborhood and in the extreme case when the Hittite ruler is himself faced with internal strife; the renouncing of all independent contact with foreign powers; the extradition of fugitives who had fled central Ḫatti, simple peasants as well as disgruntled members of the ruling class; and the guarantee of the succession of the Great King's designated heir to the Hittite throne.

Furthermore, vassals are forbidden to engage in warfare among themselves but rather are required to present their differences for arbitration to the King of Carchemish or, if necessary, to the Great King of Ḫatti himself. Finally, a number of documents demand that the vassal ruler make a yearly visit to the Hittite court, where he will present his homage and tribute to the Great King in person.

4. *Deposition:* The metal treaty tablet is to be placed in the temple of the chief deity of the vassal, where it will be under the literal oversight of the gods. Its contents are to be recited to the subordinate at regular intervals. For instance, we read in the treaty of Muwattalli II with Alakšandu of Wiluša: "Furthermore, this tablet that I have made for you, Alakšandu, shall be read out before you three times yearly, and you, Alakšandu, shall (thus) be familiar with it."[14]

5. *List of Divine Witnesses:* The deities of both partners are summoned to act as witnesses to the provisions and the oaths. Thus the gods of the subject people are also given the honor and responsibility of overseeing adherence to the agreement. The extensive lists of deities in Hittite treaties are of course very useful to scholars in the reconstruction of Hittite religious history.[15]

6. *Curses and Blessings:*[16] Here the vassal recites various self-imprecations before the divine guarantors of the treaty while the Great King pronounces a number of blessings upon his underling, conditional of course upon the latter observing his obligations. A particularly vivid example may be quoted from the agreement between Šuppiluliuma I and Šattiwaza of Mitanni: "May (the gods) stand and listen and be witnesses to these words of the treaty. If you, Šattiwaza, and you Hurrians do not observe the words of this treaty, the gods, lords of the oath, shall destroy you [and] you Hurrians, together with your land, your wives, and your possessions. They will draw you out like malt from its husk. As one does not get a plant from stony ground(?)—if you, Šattiwaza, break the treaty—so you, together with any other wife whom you might take,[17] and you Hurrians, together with your wives, your sons, and your land, shall thus have no progeny. And these gods, who are lords of the oath, shall allot to you poverty and destitution. And you, Šattiwaza—they shall overthrow your throne!"[18]

Or consider this passage from the treaty concluded by Muršili II with Tuppi-Teššup of Amurru: "All the words of the treaty and the oath [that] are inscribed on this tablet—if Tuppi-Teššup [does not observe these words] of the treaty and of the oath, then these oath gods shall destroy Tuppi-Teššup, [together with his person], his [wife], his son, his grandsons, his household, his city, his land, and together with his possessions. But if Tuppi-Teššup [observes] these [words of the treaty and of the oath] that are inscribed on this tablet, [then] these oath gods [shall protect] Tuppi-Teššup, together with his person, his wife, his son, his grandsons, [his city, his land], his household, [and together with his possessions]."[19]

These diplomatic instruments, with their most explicit threats of divine retribution in case of violation, constituted the ideological adhesive that held together the Hittite empire. The oaths they contain are the active element in this bonding, for unlike the gods of Egypt, who in the view of their worshipers enjoyed world dominion, Hittite deities entered into the affairs of foreign lands only insofar as they enforced the imprecations that they had guaranteed. That the Hittites considered the breaking of an oath to entail quite serious consequences is clearly shown by the interpretation of an event given in the annals of Muršili II: the king Aitakama of Kinza had joined in the general revolt against the Hittite Great King Muršili II, only to be murdered by his own son Ari-Teššup, who then reaffirmed his land's loyalty to Ḫatti. From this course of events the narrator draws the following conclusion: "The oath gods shall take [their revenge]. The son shall kill his father, brother shall kill brother, and they shall destroy their own [flesh and blood!]"[20]

I conclude with a look at further measures taken by the Great King to control his vassals. Some of these practices reached into the very heart of the family of the subordinate. As was Egyptian practice in connection with their Palestinian princes,[21] the Hittites carried off children of ruling dynasts to their capital, where they were indoctrinated with loyalty to their imperial masters, served as hostages for the compliant

[13] Laroche 1971: No. 68, §11, translated by Beckman (1999:76).

[14] See n. 9.

[15] See Kestemont 1976.

[16] On these instruments of Hittite administration, see Christiansen 2012.

[17] That is, in addition to Šattiwaza's first spouse, Šuppiluliuma's daughter, whom he naturally did not wish to place under the threatened curse.

[18] Laroche 1971: No. 51, §15, translated by Beckman (1999:48).

[19] Laroche 1971: No. 62, §§21–2, translated by Beckman (1999:64).

[20] KBo 4.4 ii 10–2 (Laroche 1971: No. 61.II), edited by Goetze (1933:112–5).

[21] See Redford 1992:198–9.

behavior of their fathers, and were immediately at hand to replace the latter in the event of treason.

An even more intimate involvement of Ḫatti in the domestic affairs of her subordinates was the institution of diplomatic marriage.[22] Among Syrian vassals, the rulers of Mitanni, Amurru, and Ugarit all received daughters of the Hittite Great King as wives. (Here we note a contrast with Egyptian practice, for the pharaoh was most unwilling to send a daughter to marry a foreign ruler of whatever rank, deigning only to accept alien princesses into his own harem.) Since a Hittite princess invariably became the highest-ranking wife of the vassal—that is, the ruling queen—one of her male offspring would be the heir presumptive of his father. Once on the throne, a king of such a lineage, whose family ties bound him to his overlord as well as to his compatriots, could be expected to display exemplary loyalty to the empire. Such was indeed the case with Šaušgamuwa, grandson of both Ḫattušili III and Bentešina of Amurru, whose personal stamp seal even identifies him as a Hittite prince.[23]

In sum: ideological control in the form of divine sanctions and the indoctrination of junior members of the families of vassal kings, the infiltration of those families themselves through marriage, and the more overtly coercive practice of hostage-taking, combined with the minimal policing powers of the King of Carchemish, served to maintain Ḫatti's grip on northern Syria for almost 200 years. Although these measures were rather simple, they were both systematic and adequate for the conditions of the Late Bronze Age.

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[22] See Pintore 1978:69–87.

[23] The seal was impressed on two tablets recovered at Ugarit; see Schaeffer 1956:30–5, figs. 38–40, 43–4.

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The Births of the Gods and the Kindling of Fire in *Ṛgveda* 10.72*

JOEL P. BRERETON

Late Ṛgvedic poetry was marked by the composition of what have been called "speculative" or "philosophic" hymns, hymns that consider the ultimate origin of things or final divine principles. These sūktas are often puzzling, suggestive rather than discursive. And one of the most baffling of them is RV 10.72, an apparent cosmogony that ends with a description of the birth of the Ādityas, representing the gods generally, and of Mārtāṇḍa, the progenitor of humans (Hoffmann 1957:94–6). In his introduction to the hymn, Geldner (1951:3.250) remarked that it almost appears as though its poet deliberately wished to illustrate the insolubility of the problem of creation by composing a hymn comprising contradictory cosmogonic theories. Undaunted, later scholars have tried to find less anarchic interpretations. Especially noteworthy are the studies of Paul Thieme (1986) and Harry Falk (1994). Thieme saw the hymn as a debate between two speakers, one taking a mythological and theistic approach, the other drawing on a natural philosophy to describe creation. He thus reduced Geldner's many contradictory theories to just two opposing ones. Responding to both Geldner and Thieme, Falk argued that the hymn presents a single theory of creation.

In justifying his view of the internal consistency of the hymn, Falk made a compelling argument that its formal features signal its unity and the unity of its perspective. Ṛgvedic poets possessed various techniques for ordering and integrating their hymns, and the poet of 10.72 deploys an unusual number of these. First, the hymn shows ring composition in its outermost verses, that is, its last verse recalls its first (Falk 1994:19). So verse 1 concludes with the phrase *úttare yugé* 'in a later generation', and the first hemistich of the last verse ends, *pūrvyáṃ yugám* 'to the primordial generation'. This echo of the first verse in the final one gives the hymn defined boundaries and indicates the completion and coherence of the whole composition. Second, the hymn shows rigorous concatenation, in which a verse is chained to its preceding and following verse by repetition or recollection of a phrase from those verses. The following reproduces the verses' verbal linkages identified by Falk (1994:19):

*With much pleasure I dedicate this essay to my colleague, my collaborator, and, best of all, my friend Stephanie Jamison. It was written in the spirit of her work on the literary techniques of the Ṛgvedic poets, work that constitutes one of the signal advances in contemporary Ṛgvedic scholarship.

1ad	*devā́nāṃ . . . úttare yugé*	2c	*devā́nām pūrvyé yugé*
2cd	*yugé 'sataḥ sád ajāyata*	3ab	*yugé . . . [á]sataḥ sád ajāyata*
3d	*uttānápadas*	4a	*uttānápado*
4c	*áditer dákṣo ajāyata*	5ab	*áditir . . . ájaniṣṭa dákṣa*
5c	*devā́* [in second position]	6a	*devā́* [in second position]
6a	*yád devā . . . salilé*	7ac	*yád devā . . . samudrá* [-é]
7c	*sū́ryam* [= *ādityám*]	8a	*aṣṭáu putrā́so áditer* [= *ādityā́ḥ*]
8a	*putrā́so áditer*	9a	*putraír áditir*
8cd	*úpa praít . . . mārtāṇḍám*	9bd	*úpa praít . . . mārtāṇḍám*

But beyond these two, there is a third marker of the hymn's coherence that Falk does not mention. The hymn shows what Stephanie Jamison (2004 and 2007:80–9) has called an "omphalos structure," in which the middle verse of the hymn is its climax or the key to its meaning. In 10.72, the first pāda states that the hymn will declare the 'births of the gods' (*devā́nām . . . jánā*), and in verse 5, the omphalos verse, these gods are born: 5c *táṃ devā́ ánv ajāyanta*. That is to say, the epiphany of the gods, announced as the hymn's theme at its beginning, finally occurs in its central verse. Thus, with its outer boundaries defined, its verses chained, and its middle verse acting as a pivot, this hymn calls for an interpretation that reflects its tight formal unity.

The problem is how to find such an interpretation. The poet revels in unexpected twists and paradox: Aditi is born from Dakṣa, but also Dakṣa from Aditi (vs. 4). He reverses time, beginning by looking at the future and ending in the past (vss. 1, 9). He overlays the stages of his narrative: in verse 3 the regions of space are born after 'what exists', but then in verse 4 the regions of space are born 'from the earth'. Small wonder that Geldner surrendered to chaos! And yet the formal order of the hymn challenges us to find a corresponding interpretive order. I propose that such an order emerges by seeing behind the poet's narrative an implicit allusion to the kindling of the sacrificial fire. In this essay I will look closely at two verses from the hymn's opening to show, first, that the hymn begins with an implied reference to the fire and, second, that this reference allows us to see coherence rather than confusion.

The last of the hymn's formal markers, its omphalos structure, not only underscores its unity but also defines its theme. As we noted, the middle verse announces the births of the gods. Now when poets speak of the birth of a god, they are usually describing the deity's appearance at the sacrifice or at the time of the sacrifice. That appearance may be the manifestation in visible form of a god such as Soma or the Sun,[1] but the gods may also appear not to the eyes but in a poet's mind and vision. Although he is not visible, Indra is born at the sacrifice and through the sacrifice:

[1]In RV 9.9, for example, the birth of the god Soma is also the birth of the Sun, with whom he is identified, and of his 'two mothers' or 'two parents', perhaps Heaven and Earth, which become visible in the morning: 9.9.3ab *sá sūnúr mātárā śúcir, jātó jāté arocayat* "Their blazing child, he made his two mothers shine—as he was born, as they were born." For the birth of Soma and of the soma juice, see also 9.3.9, 10; 9.18.2; 9.29.2; 9.59.4.

5.32.11ab *ékaṃ nú tvā sátpatim pā́ñcajanyaṃ, jātáṃ śr̥ṇomi yaśásaṃ jáneṣu* "Now I hear that you are the lone settlement-lord belonging to the five peoples, born as the glorious one among the peoples."[2] Thus in 10.72.1, when the poet says that as a result of his hymn one 'will see' the births of the gods, he can mean that one will see a visible manifestation of the gods in the sacrifice or that one will see the gods in one's mind at the sacrifice.[3] Of course, the poet can also exploit both ways of seeing—by visible form and by envisioned presence.

The deity most famously "born" at the sacrifice is Agni, who was anciently given birth by the gods and is newly given birth at the beginning of the sacrificial day.[4] In the sacrifice, Agni is engendered by the fire-churning sticks, the *aráṇī*s, as in 5.9.3ab *utá sma yáṃ śíśuṃ yathā, návaṃ jániṣṭāráṇī* "And [Agni], to whom the fire-churning stick has again given birth like a new calf..." and 7.1.1ab *agníṃ náro dī́dhitibhir aráṇyor, hástacyutī janayanta* ... "Our men gave birth to Agni in the two fire-churning sticks by their insights and by the motion of their hands." The two *aráṇī*s are thus the parents of Agni—the upper piece of wood his father, the lower his mother—or because the word *aráṇī* (*-i*) is feminine, they are his two mothers. After the birth of Agni in the ritual, other gods appear, or in a variant conception, the appearance of Agni *is* their appearance. Thus according to the opening verses of RV 5.3, Agni becomes the visible manifestation of Mitra, Varuṇa, Aryaman, Indra, and the Maruts. Because the gods appear by means of Agni, in verse 1 the poet declares to Agni himself that "in you are all the gods" (1c *tvé víśve* ... *devā́ḥ*) and in verse 4 that the gods are visible in Agni: 4a *táva śriyā́ sudŕ̥śo deva devā́ḥ* "By the splendor of you lovely to see, o god, the gods are lovely to see." Here *sudŕ̥śaḥ* 'lovely to see' has double application, both genitive singular modifying Agni and nominative plural describing the gods.[5] By referring to

[2] Cf. also 3.32.9, in which the reality of the greatness of Indra comes about when he is born and has drunk the soma. Poets also speak of the ancient birth of Soma ritually repeated in the present (9.3.9–10) and of the original birth of Indra (e.g. 1.5, 8.77.8, 10.73), though often cryptically.

[3] Cf. 10.130.6, in which the poet 'sees' in his mind the ancient sages who first performed the sacrifice: 10.130.6cd *páśyan manye mánasā cákṣasā tā́n, yá imáṃ yajñám áyajanta pū́rve* "Seeing with my mind as my eye, I think of the ancient ones who performed this sacrifice."

[4] Here by way of example are verses mentioning Agni's birth at the sacrifice collected from just the first three maṇḍalas: 1.6.3, 12.3, 31.11, 36.19, 68.3, 95.3, 96.1, 98.1, 127.9, 128.1, 4, 141.1, 144.4, 7, 189.6; 2.1.1, 5.4, 9.5; 3.1.4, 14, 2.7, 3.10, 11, 5.8, 6.2, 5, 10.6, 20.2, 23.3, 29.3, 7, 11, 13, 14, 31.3. *R̥gveda* 3.1 can stand for the many iterations of this theme throughout the text. As discussed in more detail in the introduction to this hymn in Jamison and Brereton 2014, the hymn's central theme is Agni's birth, both his original birth and his birth as the sacrificial fire, and most of its verses can be read as describing either or both. One verse in which the poet refers to both is 3.1.4: *ávardhayan subhágaṃ saptá yahvī́ḥ, śvetáṃ jajñānám aruṣáṃ mahitvā́ / śíśuṃ ná jātám abhy ā̀rur áśvā, devā́so agníṃ jániman vapuṣyan* "Seven young women strengthened him of good fortune, who is white as he is born, red in his greatness. / (Those) mares came to him as to a new-born colt. The gods marvel at Agni at his birth." The seven young women are rivers (so Geldner and Sāyaṇa), for the waters originally gave birth to fire. But in verse 6, the young women are also the 'seven voices' of the priests, who give birth to the fire. In the last pāda of 3.1.4, the injunctive, which is not marked for time, can apply to the past when Agni was first born and to his present birth.

[5] This interpretation of *sudŕ̥śaḥ* as a śleṣa is supported by its placement in the center of the pāda midway between the two nominal forms it modifies, *táva* at one end and *devā́ḥ* at the other.

both Agni and the gods, *sudŕ̥śaḥ* functions as a verbal icon signifying the simultaneity of Agni's appearance and the gods' manifestation.

Because the birth of Agni and the subsequent appearance of the gods is such a frequently recurrent and prominent theme in the *R̥gveda*, when the first verse of 10.72 mentions the births of the gods in general, we can infer the birth of Agni in particular. And though the poet never directly mentions Agni within the hymn, other suggestions of links between the births of the gods and the birth of Agni and between the ancient birth of the gods and their present birth in the ritual gradually unfold in the hymn's narrative. To be sure, some of these suggestions are oblique, but the *R̥gveda* amply justifies assumptions of poetic subtlety and intricacy.

The verses to which I turn special attention are 3 and 4, which enigmatically describe the ultimate origin of things. We can lift some of their obscurity, however, by seeing their connection to the ritual act of kindling fire. These verses are:

10.72.3 *devā́nāṃ yugé prathamé, 'sataḥ sád ajāyata*
tád ā́śā ánv ajāyanta, tád uttānápadas pári

In the first generation of the gods,
what exists was born from what does not exist.
The regions of space were born following that (which exists)—
that was born from the one whose feet were outstretched.

10.72.4 *bhū́r jajña uttānápado, bhuvá ā́śā ajāyanta*
áditer dákṣo ajāyata, dákṣād v áditiḥ pári

The earth was born from the one whose feet were outstretched;
from the earth[6] the regions of space were born.
From Aditi, Dakṣa [/the Skillful One] was born,
and from Dakṣa, Aditi.

In verse 3, *sát* "what exists" is born from *ásat* "what does not exist," and "what exists" is also born from "the one whose feet are outstretched." I understand "what exists" to point to Agni when he has been churned out as the fire of the sacrifice. "What does not exist" would then refer to the fire before it appears. That is to say, *sát* here echoes the sense of *satyá*, which in other hymns describes the real 'presence' of the gods at the sacrifice. As Oberlies (1998:277–8, 538) has rightly emphasized, the successful sacrifice requires an epiphany of the gods, especially an epiphany of Indra.[7] Agni too must

[6] Or "from the emerging form." See the discussion below.

[7] Cf. 4.16.1a *ā́ satyó yātu maghávām̐ r̥jīṣī́* "Let him drive here (to be) present (*satyá*)—the generous one with the silvery drink" and 10.29.4abc *kád u dyumnám indra tvā́vato nr̥̄́n, káyā dhiyā́ karase kán na ā́gan / mitró ná satyá urugāya bhr̥tyā́i* "When (will your) brilliance (come) to men like you, Indra? With what insight will you arm yourself? When will you come to us, / (being) present (*satyá*) like an ally, o wide-ranging one, for our support [/offering]?"

be present, and unlike Indra, he must be visibly present. The central verse of the first hymn of the *R̥gveda*, an omphalos verse, emphasizes the necessity of Agni's presence: 1.1.5 ***agnír hótā kavíkratuḥ, satyáś citráśravastamaḥ / devó devébhir ā́ gamat*** "Agni . . . as one present (*satyá*) . . . will come as a god with the gods." Without Agni's presence, the other gods cannot be present.

The justification for connecting the presence of Agni to "what exists" partly depends on the most infamous part of this hymn, the birth of "what exists" from the ***uttānápad***, the "one whose feet are stretched out" or possibly "stretched up" or even "stretched open." The compound ***uttānápad*** occurs in the *R̥gveda* only in this hymn, so it was probably coined by our poet.[8] But ***uttāná*** alone appears seven times in the *R̥gveda*, and these attestations can help us understand what the compound means and, even more importantly, what it suggests beyond its meaning. In different verses, ***uttāná*** describes the head of the sun 'stretched upwards' (4.13.5), the offering ladle 'stretched out' (5.1.3), the 'outstretched' earth (10.27.13), the 'outstretched' yoke pole of the sun's chariot (1.164.14), and two ritual cups (*camū́s*) 'stretched out' or 'open', likely representing Heaven and Earth (1.164.33). In two final verses, ***uttāná*** describes the lower ***aráṇī***, the lower fire-churning wood:

3.29.3 ***uttānā́yām áva bharā cikitvā́n, sadyáḥ právītā vŕ̥ṣaṇam̐ jajāna***
aruṣástūpo rúśad asya pā́ja, íḷāyās putró vayúne 'janiṣṭa

> Intent, bear down upon her who is stretched out [= the lower ***aráṇī***].
> Impregnated on this same day, she has given birth to the bull [= Agni].
> With flame-red crests—his face is glowing—
> the Libation's son has been born within the ritual pattern.

2.10.3 ***uttānā́yām ajanayan súṣūtam, bhúvad agníḥ purupéśāsu gárbhaḥ***
śíriṇāyāṃ cid aktúnā máhobhir, áparīvr̥to vasati prácetāḥ

> In her who is stretched out [= the lower ***aráṇī***], they engendered him
> of easy birth.
> Agni becomes the embryo in the women [= the kindling] dressed
> in many colors.
> The discerning one [= Agni] dwells by night also in (the birth-)canal (?),
> unable to be confined (there) because of his great powers.

In these verses the lower ***aráṇī***, extended horizontally, is imagined as a woman 'stretched out' or 'stretched open' to give birth to Agni.

As Geldner and others have rightly argued, ***uttānápad*** also describes a position in which a woman gives birth.[9] It is possible that ***uttānápad*** and the ***uttānā́ aráṇī***-

[8] The word also occurs in AVP 5.10.4, where the poet has likely adopted the term from RV 10.72 in order to describe the earth—so Lubotsky 2002:60—as a mother in the position of parturition.

[9] Although they date from a thousand years after the *R̥gveda* and therefore their evidence is hardly conclu-

are independent and unrelated reflections of birthing, but that is not very likely. The R̥gvedic poets' lexical choices, especially their use of unusual expressions such as ***uttānápad***, create deliberate associations with other lexical items. In this case it is far more probable that through the word ***uttānápad*** the poet intentionally evokes the ***uttānā́ aráṇī-***, which gives birth to Agni.

If an association with the lower fire-churning wood can explain ***uttāná-*** in ***uttānápad***, do the ***-pad***, the 'feet', have special significance? They do, but the poet has hidden it in another part of the body. The term ***uttānápad*** trades on the expression ***uttānáhasta*** 'with hands outstretched', which is attested four times in the R̥gveda. In three of these, ***uttānáhasta*** appears alongside ***námasā*** (3.14.5, 6.16.46, 10.79.2) and describes a gesture of reverence to the sacrificial fire. Although ***uttānáhasta- námasā*** is not frequently attested, the phrase and ritual gesture it describes were likely well known, for they go back to the Indo-Iranian period. The Avestan equivalent appears in the first verse of the Gāthās: Y 28.1 ***ahiiā yāsā nəmaŋhā ustānazastō rafəδrahiiā*** "I entreat with hands outstretched in reverence of him, (our) support" (Insler 1975:25). Thus ***uttānáhasta*** 'with hands outstretched' was sufficiently familiar that it would have been recalled by ***uttānápad*** 'with feet outstretched'. If ***uttānápad*** points to the lower ***aráṇī***, it suggests the position of the ***aráṇī*** is not only a birthing position but also a gesture of reverence to Agni, relocated from the original ritual gesture but still reverential.

Complicating the interpretation of verse 3 is verse 4, in which "the one whose feet are outstretched" gives birth not only to ***sát*** but also to ***bhū́***, which in turn gives birth to the 'regions' (***ā́śāḥ***). Once again, we are dealing with some verbal legerdemain. Because it gives rise to the 'regions', the primary sense of ***bhū́*** must be its common meaning, 'the earth'. But here it is juxtaposed with ***sát*** 'what exists, what is', and this juxtaposition evokes the etymological meaning of ***bhū́***, 'what becomes'. This etymological meaning in turn recalls a second sense of ***bhū́*** attested in the *R̥gveda*. A ***bhū́*** can be a 'form of being' or, better, a 'form of becoming', an 'emerging form'. It is used in this sense in another riddling hemistich that also describes the churning of fire. This hemistich appears in two verses, 3.55.13 and 10.27.14. The latter reads:

10.27.14 ***br̥hánn achāyó apalāśó árvā, tasthaú mātā́ víṣito atti gárbhaḥ***
anyásyā vatsáṃ rihatī́ mimāya, káyā bhuvā́ ní dadhe dhenúr ū́dhaḥ

> Lofty [like a tree] though without shadow and foliage is
> the steed [=Agni].
> The mother [=the lower ***aráṇī***] stands; unbound the newborn
> [=Agni] eats.

sive, both the Caraka and Suśruta Saṃhitās say that a woman in labor should lie on her back with her knees raised and legs parted (Martha Selby, p.c.). This could be the position that ***uttānápad*** describes. The two saṃhitās do not approve of birth in a crouching or squatting position, which is how Geldner understands ***uttānápad***. Thieme (1986:169) translates the phrase "die, deren Füße (Fußsohlen) nach oben schauen," which indicates "die Haltung der Frau bei der Kniegeburt." This kneeling position is also unlikely to be that described by ***uttānápad***.

Licking the calf [= Agni] of another [= the lower *aráṇī*], she
[= the Libation] lows.
In what emerging form (*bhuvā́*) has the cow hidden her udder?

Although the final question is intended to puzzle, which it succeeds in doing, one possibility is that the 'emerging form', the *bhū́*, is the form of fire, coming forth from the lower *aráṇī* and fed by the libation. In 10.72.4, by means of the double significance of *bhū́* as 'earth' and 'emerging form', the poet suggests a connection between the creation of the world and the emergence of Agni at the ritual. That is to say, the world rises upwards from the earth just as the sacrificial fire extends upwards.

Returning again to 10.72, verse 4 concludes with the birth of Dakṣa from Aditi and Aditi from Dakṣa. The name *dákṣa* has an appellative sense, approximately 'skill' or 'skillful'. Setting aside 10.72 for the moment, there are only two R̥gvedic passages (1.89.3 and 2.27.1) in which the god Dakṣa appears as an independent deity. More often the term *dákṣa* characterizes another god, usually Agni, although *dákṣa* and the noun *dákṣas* are associated also with Soma, Indra, and Mitra and Varuṇa (Brereton 1981:299). Characterizing Agni, *dákṣa* describes the god's ritual skill, his ability to recognize or to carry out a well-performed rite, as for example in 3.14.7:

3.14.7 *túbhyaṃ dakṣa kavikrato yā́nīmā́, déva mártāso adhvaré ákarma*
tváṃ víśvasya suráthasya bodhi, sárvaṃ tád agne amr̥ta svadehá

For you, o skillful one with a poet's purpose, are these things that
we mortals have done in the rite, o god.
Be aware of everyone whose chariot [= sacrifice] is good.
Sweeten here all this [= the sacrifice], o immortal Agni.

In 10.64.5ab Agni as *dákṣa*, the 'skillful one', appears alongside the goddess Aditi, and therefore in 10.72 *dákṣa* may not only name the god Dakṣa but also point to the 'skillful' Agni.

Another hymn dedicated to Agni, RV 10.5, confirms the possibility of this interpretation of 10.72. The language of its last verse parallels that of 10.72 in its references both to Aditi as the mother of the *dákṣa*—in 10.5 clearly *dákṣa* Agni—and to *ásat* and *sát*:

10.5.7 *ásac ca sác ca paramé vyòman, dákṣasya jánmann áditer upásthe*
agnír ha naḥ prathamajā́ r̥tásya, pū́rva ā́yuni vr̥ṣabháś ca dhenúḥ

What exists and what does not exist (are/were) in the farthest heaven,
at the birth of the skillful one [= Agni] in the lap of Aditi.
Agni is the firstborn of truth for us
(and both) bull and cow in his ancient lifetime.

The second half-verse refers both to the present, in which Agni is the "firstborn of truth for us" in the sacrifice, and to the distant past, into which Agni's "ancient lifetime" extends. In the first half-verse, suppression of the verb makes possible a similar reference to both past and present. "What exists" and "what does not exist" and "the birth of the skillful one" can describe the original creation, but they can also refer to the present. In the present Agni is born "in the farthest heaven" in the form of the rising sun (as in 7.5.7). Thus "what exists"' and "what does not exist" can once again represent the presence and absence of Agni, the moment of his coming into visible being as both the morning sun and the morning fire.

While there is much of RV 10.72 that I have not discussed, I have tried to account for its central structure and establish its opening theme. Overtly the hymn describes the births of the gods, as stated in its first verse and affirmed in its central one. But especially in verses 3 and 4, the way in which the poet describes the births of the gods links them to the birth of Agni, the ritual fire. The surface register of the hymn is one of creation and divine genesis; reference to the ritual is created by śleṣa, association, and suggestion, that is, by literary strategies familiar from later Sanskrit literature but already deployed in other R̥gvedic hymns. By thus linking the births of the gods to the birth of fire, the appearance of the gods to the appearance of Agni, the hymn fashions the ritual kindling of fire into a sign of the gods' epiphany. Each time fire is churned out, Agni is born, and through him, the gods are once again born as they were in the beginning. Granted, this interpretation of the hymn is hardly an obvious one, but the hymn may not have been as elusive to its original audience as it might appear. If this hymn is an Agni hymn, originally recited in the morning at the kindling of fire, then its reference to the ritual would have been contextually evident to its ancient hearers.

There is evidence also outside this hymn that supports understanding a reference to the ritual within it. Starting with RV 10.61 and running through 10.85, the hymns of the tenth maṇḍala are arranged in related pairs.[10] In most cases, the Anukramaṇī assigns each pair of hymns the same dedicand and the same poet. The hymn paired with 10.72 is 10.71, dedicated to Knowledge (Jñāna) and attributed to Br̥haspati Āṅgirasa. The dedicand for 10.72 is the "gods," and the poet is Br̥haspati Āṅgirasa, Br̥haspati Laukya, or Aditi Dākṣāyaṇī. Thus the Anukramaṇī does not associate 10.72 as closely to 10.71 as it does other pairs of hymns. But here I think the Anukramaṇī understates the link between the two hymns that their placement together in the maṇḍala implies.

R̥gveda 10.71 concerns the mastery of ritual speech, essential for priests performing the rites. The hymn begins by recalling the ancient seers, who first found the 'name set down in secret' (*nāmadhéyam … níhitaṃ gúhā*), the mystery articulated in their

[10] Following the Anukramaṇī, 10.61–6 are three pairs of hymns to the All Gods, each pair by a different poet, 10.67–8 are hymns to Br̥haspati by Ayāsya Āṅgirasa, 10.69–70 are hymns by Sumitra Bādhryaśva, 10.81–2 are hymns to Viśvakarman by Viśvakarman, and 10.83–4 are to Manyu 'Battle Fury' attributed to Manyu. The only pair of hymns in this collection that are not related in a close and obvious way are 10.75 to the Streams of Water attributed to Sindhukṣit Paraiyamedha and 10.76 to the Pressing Stones by the serpent Jaratkarṇa Airāvata.

speech. The concerted priestly action and effective priestly speech of the ancient seers are models for contemporary priests, to whom the poet shifts his attention in the second verse. These priests, he says, have created the speech of the sacrifice, and their shared knowledge and their shared ability to express that speech bind them together. The hymn acknowledges that not everyone who would recite or compose is capable of doing so (vs. 4); the talent of some is unproductive and their words are sterile, bringing no "fruit or flower" (5d *vā́cam . . . aphalā́m apuṣpā́m*). Likewise, an uncooperative priest betrays the speech he perceives because only together can priests perform the rite (vss. 6, 9). This summary of its first half captures the hymn's principal themes. The poet presents the origin and nature of ritual speech, affirms its centrality in the rite, and stresses the importance of cooperation among priests. What connects 10.71 and 72 is that they are complementary discourses on the ritual: while 10.71 concerns ritual speech and the unity of the priests as masters of speech, 10.72 concerns ritual action, the kindling of fire as a replication of creation and the resulting epiphany of the gods.

I realize that I have taken the interpretation of 10.72 in an unusual direction. Exegetes normally understand this hymn to present a general cosmogony or even a general philosophy. So, for example, Falk (1994:21) compares this hymn to the later Sāṃkhya system and argues that it anticipates the Sāṃkhya principle of *satkāryavāda*. To be sure, there is a cosmogony in the hymn and there are potentially philosophic themes, but fundamentally the hymn presents the ritual as modeled on an ancient divine genesis and as mediating a present divine genesis.

What I suggest here can also apply to other "philosophic" hymns of the *R̥gveda*. Like 10.72, hymns such as 10.90, the *puruṣasūkta*, and 10.129, the *nāsadīyasūkta*—to name two of the most famous such hymns—are also interpretations of the ritual and commentaries on the priesthood. In RV 10.90 the figure of the Puruṣa, whose body becomes the elements of the ritual, parts of the world, and divisions of society, corresponds to the Middle Vedic figure of Prajāpati, who embodies the sacrifice.[11] Elsewhere (Brereton 1999), I have argued that RV 10.129 identifies the ultimate power of creation as thought. Since knowledge and speech defined poets and priests, the hymn declares the power that is possessed by poets and priests to be the highest of all creative powers and of all modes of creation. Thus all three hymns, 10.72, 10.90, and 10.129, are interpretations of the ritual and in this respect anticipate the Brāhmaṇa commentary of the Middle Vedic period. Then later they were hermeneutically transformed into general philosophic statements.

[11] Within the hymn, the poet identifies the Puruṣa as both the sacrificial victim and the sacrifice itself: 10.90.7ab *táṃ yajñám barhíṣi praúkṣan, púruṣaṃ jātám agratáḥ* "On the ritual grass they consecrated that sacrifice, the Puruṣa, born at the beginning."

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Schwa Indogermanicum and Compensatory Lengthening

ANDREW MILES BYRD

1 Introduction

In her seminal paper "The Quantity of the Outcome of Vocalized Laryngeals in Indic," Stephanie Jamison demonstrates that the seemingly random reflexes of interconsonantal laryngeals in Indic were in fact rule-governed, once one takes morphology into consideration. She convincingly identifies a conditioned phonemic split within the prehistory of Indic, with 'vocalized' laryngeals being realized as long /ī/ before a consonant at the end of the word, and short /i/ elsewhere (Jamison 1988:220). In this small contribution in her honor I hope to address a hitherto ignored problem in the study of laryngeal vocalization in PIE as well as to explore briefly why pre-consonantal vocalized laryngeals were realized as long /ī/ in word-final position in Indic.

2 Schwa Indogermanicum

There are two possible ways that one may view the phonetic and phonological reality of vocalized laryngeals within PIE:[1]

1. **Direct Vocalization:** */d^{h}h$_1$tó-/ → *[d^{h}h̥$_1$]$_\sigma$[tó-]$_\sigma$ 'placed' > Gk. *θετός*, Skt. *hitá-*
2. **Vowel Epenthesis:** */d^{h}h$_1$tó-/ → *[d^{h}əh$_1$]$_\sigma$[tó-]$_\sigma$ 'placed' > Gk. *θετός*, Skt. *hitá-*

The first hypothesis, which claims that interconsonantal laryngeals were directly syllabified as the syllable nucleus, is certainly a reasonable one, given the many parallels in Salishan and Caucasian languages[2] and the fact that the PIE resonants behave in a similar fashion (cf. */tn̥tós/ → *[tn̥tós] 'stretched'). However, many Indo-Europeanists prefer to view laryngeal 'vocalization' as vowel epenthesis on account of certain cases of stop aspiration by *h_2 within Indo-Iranian;[3] one need only cite the pair */ph$_2$tér-/ > *pitár-* (with unaspirated /p/) and */d^{h}ugh$_2$ter-/ > *duhitár-* (with /h/ from earlier *-$\acute{j}^h$-). This latter approach is the most common one, taken most notably by Mayrhofer (1986:138):

> In virtuellen ersten Silben entstand ein überkurzer Sproßvokal vor dem Laryngal ($_e$*H*), der indoiranisch zu /i/ führte, ohne vorangehende Verschlußlaute zu aspireren... In virtuellen Mittelsilben stand der Sproßvokal hinter dem Laryngal (*H*$_e$), woraus sich Behauchung und Vokalisierung im Vedischen und Prasun (*duhitár-*), nur Behauchung in Teilen des Iranischen (altavest. *dugədar-*), nur Vokalisierung in einem Teil der restlichen Sprachen..., schießlich Schwund... in den übrigen Sprachen... ergab.

But a problem arises upon closer inspection. Why are forms with pre-laryngeal vowel epenthesis such as PIE *[pəh$_2$tér-] 'father'—with an "überkurzer Sproßvokal" that we may identify as *[ə]—invariably found with a short vowel in the initial syllable in the daughter languages, and not a long one? That is to say, if a vowel had been epenthesized before a laryngeal in */ph$_2$tér-/, then why does it produce Lat. *pater*, Skt. *pitár-* and not Lat. ˣ*pāter*, Skt. ˣ*pītár-*? At first glance, such lack of compensatory lengthening (CL) appears to pose a problem for the vowel epenthesis hypothesis, arguing in favor of direct laryngeal vocalization. However, we will see that a lack of CL in this configuration has well-grounded theoretical and phonetic motivations, with parallels across many languages and language families.

Before we proceed with the matter at hand, a few words must be said about the process of syllabification within PIE. Indo-Europeanists have traditionally concerned themselves with ***how*** sequences were parsed into syllables in PIE, through the identification of syllable nucleus assignment and the placement of syllable boundaries in polysyllabic words. This topic has been well studied, by Hermann (1923), Meillet (1937:134–6), and most famously Schindler (1977:56), who characterized PIE syllabification as applying in a "right-to-left" iterative fashion, such that if two adjacent segments are potential syllable nuclei, the rightmost is always chosen as the nucleus as long as it is not adjacent to a "true" vowel (**e*, **a*, **o*, etc.).[4]

However, beginning with Keydana 2004 (followed by Byrd 2010a), scholars have increasingly realized that we may also identify ***which*** sequences could be parsed into syllables in PIE. For while PIE allowed a number of different types of complex syllables, it did not allow ***all*** types of syllables. As I argue in Byrd 2010a:107, we may

[1]In this article I will make an explicit distinction between underlying forms (e.g. /ph$_2$térs/) and surface forms (e.g. [pəh$_2$tḗr]), with syllable boundaries being marked with subscript sigma: [pəh$_2$]$_\sigma$[tḗr]$_\sigma$. An arrow (→) indicates a synchronic phonological process, a greater-than sign (>) a diachronic one. Forms marked by ⟨*⟩ are reconstructed, those marked by ⟨ˣ⟩are ungrammatical/unattested.

[2]See Kessler n.d. for discussion and references.

[3]Cf. Fortson 2010:62.

[4]Schindler's right-to-left syllabification algorithm has since been interpreted in a number of different ways, as onset maximization (Kobayashi 2004:22–4), the avoidance of coronal sonorants in coda position (Keydana 2008 [2010]), the alignment of syllables to the left edge of the word (Cooper 2012), and an epiphenomenon created by quantative ablaut (Byrd 2015:175).

identify the entire range of possible syllable shapes in PIE as those which do not violate the MAXIMUM SYLLABLE TEMPLATE (MST):

(1) MAXIMUM SYLLABLE TEMPLATE (MST)
The maximum PIE syllable consists of two consonants in the onset and two consonants in the coda (CCVCC). The onset may violate the Sonority Sequencing Principle (SSP); the coda may not.[5]

The facts of the MST are as follows. While certain SSP violations were permitted within PIE onsets within fricative plus stop clusters (*[d^{h}ug]$_\sigma$[h$_2$ter-]$_\sigma$ 'daughter', *[s(u̯)eḱ]$_\sigma$[sto-]$_\sigma$ 'sixth' and *[h$_1$et]$_\sigma$[sḱé/ó-]$_\sigma$ 'eat (iter.)'), within PIE codas they were not.[6] If the MST was violated during the phonological derivation any number of syllabically driven phonological rules in PIE would be triggered. These could be rules of resonant syllabification, rules of consonant deletion (**stray erasure**),[7] or rules of vowel epenthesis (**stray epenthesis**). We may identify two rules of stray epenthesis in PIE:

1. **Schwa primum:** PIE */ph$_2$trés/ → *[pəh$_2$]$_\sigma$[trés]$_\sigma$ 'father (gen.sg.)'
2. **Schwa secundum:** PIE */d^{h}ǵ^{h}més/ → *[d^{h}əǵ^h]$_\sigma$[més]$_\sigma$ 'earth (gen.sg.)'

Since the underlying word-initial sequences */ph$_2$tr-/ and */d^{h}ǵ^{h}m-/ violated the MST, they could not be syllabified in PIE, and therefore a vowel was epenthesized in order to produce licit syllable structure. Given that both rules involve the epenthesis of a reduced vowel to make an unsyllabifiable sequence syllabifiable, it is reasonable to assume that these were not disparate processes, but rather a single syllabically motivated rule of schwa epenthesis, which we may call **schwa indogermanicum** *[ə]. But even so, the puzzling absence of compensatory lengthening in the sequence *-əh$_x$]$_\sigma$ remains unexplained.

[5]The SSP may be stated as follows: "Between any member of a syllable and the syllable peak, only sounds of higher sonority rank are permitted" (Clements 1990:285). I assume the following universal sonority hierarchy to have been present in PIE: vowels > glides > liquids > nasals > fricatives > stops. See Byrd 2015:176.

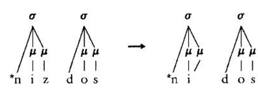
[6]Certain MST violations were permitted at word's edge via rules of extrasyllabicity (Byrd 2010a:86, 100): cf. *s[treu̯-]$_\sigma$ 'strew', *h$_2$[stḗr]$_\sigma$ 'star (nom.sg.)', and *[nék^w]$_\sigma$ts 'evening (gen.sg.)'.

[7]The most widespread example of stray erasure in PIE involves laryngeal loss via LEX SCHMIDT-HACKSTEIN in the word-medial sequence CH.CC: */d^{h}ugh$_2$trés/ → *[d^{h}ug]$_\sigma$h$_2$[trés]$_\sigma$ → *[d^{h}uk]$_\sigma$[trés]$_\sigma$ 'daughter (gen.sg)' (Schmidt 1973, Hackstein 2002). Loss of /t/ in the Indo-Iranian word for '80' may be explained in the same fashion: */h$_x$oḱth$_x$tí-/ → *[h$_x$oḱ]$_\sigma$t[h$_x$tí-]$_\sigma$ → *[h$_x$oḱ]$_\sigma$[h$_x$tí-]$_\sigma$ > Skt. *aśītí-* (Rau 2003 [2009]). Lastly, the absence of otherwise expected *s*-epenthesis in the double-dental cluster in the configuration VTTRV (the *métron* rule) is to be attributed to a violation of the MST. Thus, the MST prohibits underlying */méd-trom/ from being realized as either ˣ[méts]$_\sigma$[trom]$_\sigma$ or ˣ[mét]$_\sigma$[strom]$_\sigma$, leading to the actual result *[mét]$_\sigma$[rom]$_\sigma$ (> Gk. *μέτρον*). See Byrd 2015:123–33.

3 Should *-əh$_x$]$_\sigma$ > *-ə̄]$_\sigma$ in late PIE?

Compensatory lengthening (CL) may be defined as "the lengthening of a segment triggered by the deletion or shortening of a nearby segment" (Hayes 1989:260). While there are a number of types of CL (see Kavitskaya 2002), it most commonly occurs in the following scenario: a post-vocalic consonant is lost in the tautosyllabic sequence VC(C$_0$)]$_\sigma$, and upon deletion, the preceding vowel is lengthened: VC(C$_0$)]$_\sigma$ → V̄(C$_0$)]$_\sigma$.[8] Such a process is illustrated in the following well-known example: PIE /nisdós/ → *[niz]$_\sigma$[dós]$_\sigma$ > Lat. *nīdus*, Skt. *nīḍáḥ* 'nest'. Within the phonological literature (see Hayes 1989), CL is typically defined in terms of mora reassignment, with a mora (μ) defined as a unit of syllabic weight (Hayes 1989:254). Thus, after the loss of coda *z in the change from PIE **nizdós* 'nest' to Latin *nīdus*, the mora that was originally associated with *z became linked to the preceding vowel, thereby creating a long vowel:

(2) PIE **nizdós* 'nest' > Lat. *nīdus*



Of course, such a process requires the deleted consonant in question to have been moraic. But languages may in fact differ as to which types of segments can carry a mora in the coda: in Malayalam coda consonants never carry a mora, in Lithuanian only sonorants carry a mora, while in Latin all consonants carry a mora in the coda (Gordon 2006). If one were to posit that PIE had been a language like Malayalam or Lithuanian where obstruents were not moraic in coda position (cf. Cooper 2012), then compensatory lenthening in the sequence *-əh$_x$]$_\sigma$ would not be expected, as laryngeals would not have carried weight.[9]

But this is unlikely for a variety of reasons. To begin with, the quantitative poetic meters of most ancient IE languages (Latin, Greek, Sanskrit, etc.) suggest that all consonants, not just resonants, were assigned a mora in coda position. Second, as I have argued in Byrd 2010b, a grounded conception of Sievers' Law requires obstruents to have been moraic in PIE, as Sievers' Law was motivated by the avoidance of a superheavy syllable. And lastly, and for our purposes most significantly, there are a number of likely cases of obstruent consonant deletion reconstructible for PIE that exhibit compensatory lengthening:

[8]See Kavitskaya 2002 for other types of CL.

[9]As Gordon (2006) discusses, syllable weight may be independently identified on the basis of a number of phonological rules, including stress, tonal assignment, and CL. However, since stress/tone (i.e. pitch accent) was phonemic in PIE, it is difficult to see how it could be a useful metric here.

(3) PIE Obstruent Deletion with CL

1. **Stang's Law:**[10] */-eh$_2$m/ → *[-ām] > Skt. *sen-ām*, Gk. *τῑμ-ή́ν*, Lat. *puell-am*
2. **Szemerényi's Law:**[11] */u̯ókʷ-s/ → *[u̯ṓgʷ] >> *[u̯ṓkʷs] 'voice' > Av. *vāxš́*, Lat. *vōx*
3. **Degemination:**[12] */h$_2$éu̯s-os-s/ → *[h$_2$áu̯sōs] 'dawn (nom.sg.)' > Skt. *uṣā́s*
4. **Medial Cluster Simplification:**[13] */té-tḱ-ti/ > *[tḗḱti] 'fashions' > Skt. *tāṣṭi*
5. **Late/Post-PIE Laryngeal Deletion:**[14] *[dʰéh$_1$mn̥] > Gk. (*ἀνά-*)*θημα* 'offering'

I recognize that many of the processes listed above are not universally recognized, and it is not my intention to sway the reader one way or another on these matters—I simply refer the reader to the references cited. Fortunately, for our purposes processes (3.1) and (3.5) will suffice: it is clear that laryngeals were moraic in coda position within PIE and afterwards. And since a laryngeal would have carried a mora in the sequence *-əh$_x$]$_σ$, CL is indeed expected.

Nevertheless, there are certain laryngeal-loss rules reconstructible for PIE that exhibit no CL.[15] For instance, Kuiper's Law (Mayrhofer 1986:149), which deletes postvocalic laryngeals in absolute utterance-final position (in pausa), produces a short vowel: cf. Gk. *νύμφα* 'nymph (voc.sg.)' (< PIE *-*ah$_2$*) and Ved. *índrāvaruṇa* (voc.) 'Indra and Varuna' (< PIE *-*oh$_1$*). We also find no CL with Lex Schmidt-Hackstein (see n. 7 above): PIE *[dʰug]$_σ$h$_2$[trés] → *[dʰuk]$_σ$[trés], not ˣ[dʰūk]$_σ$[trés]. Lastly, the loss of laryngeal in the "weather rule" also leads to no CL: PIE */u̯eh$_1$dʰrom/ → *[u̯edʰrom] 'weather' > OCS *vedro*, Eng. *weather*.[16] But none of these cases provides an exact parallel to the sequence *-əh$_x$]$_σ$: this sequence is never found in absolute utterance-final position, PIE */h$_x$/ could be syllabified in the sequence *-əh$_x$]$_σ$ according to the MST, and *-əh$_x$]$_σ$ does not obligatorily precede the sequence stop plus resonant. Of course, a form like *[pəh$_2$trés] 'father (gen.sg.)' may be collapsed into the

[10] Mayrhofer 1986:164.

[11] Following the "broad" conception of Szemerényi's Law; see Sandell and Byrd, in preparation.

[12] Szemerényi 1970:109, Byrd 2010a:15–22.. The lengthened vowel in the suffix of **h$_2$áu̯sōs* is often taken to be analogical to forms such as **dʰéǵʰōm* 'earth (nom.sg.), but this is an unnecessary assumption. Moreover, as pointed out by Szemerényi (1996:117), such simplifications may handle difficult-to-explain long vocalisms, such as */nás-s/ → *[nā́s] 'nose (nom.sg.)' and */u̯ís-s/ → *[u̯ī́s] 'poison (nom.sg.)'.

[13] Rix apud Harðarson 1993:29 n. 12; cf. Kortlandt 2004. For a recent rebuttal of the existence of "Narten roots," see Melchert 2014.

[14] Fortson 2010:63.

[15] Note that unlike in word-final position, word-medial degemination never produces CL: */ném-mn/ → *[némn̥] 'gift' > OIr. *neim* 'poison' (Rasmussen 1999:647), */h$_1$és-si/ 'you are' > *[h$_1$ési] > Skt. *ási*, Gk. *εἶ*, etc. (Mayrhofer 1986:120–1). Of course, these facts are irrelevant for the problem at hand, as the sequence *-əh$_x$]$_σ$ is not part of a geminate sequence.

[16] Peters 1999:447 and Neri 2011.

weather rule, but other instances of schwa primum may not: */dʰh$_1$só-/ → *[dʰəh$_1$só-] 'divine' > Gk. *θεός*, HLuv. *tasan-za* 'votive stele'. The precise reason for the absence of CL continues to elude us.

Cross-linguistically, one also observes that CL tends not to apply in unstressed syllables: observe the loss of /ɹ/ in non-rhotic dialects within the name 'Herbert' → [ˈhɜːbət], not ˣ[ˈhɜːbɜːt] or ˣ[ˈhəbɜːt].[17] While it is likely that stress is somehow connected to our present problem, it cannot explain it entirely, since unstressed sequences of *-Vh$_x$]$_σ$ produce CL after laryngeal loss:

(4) Compensatory Lengthening in Unstressed Syllables

1. *[gʷih$_3$]$_σ$[u̯ó-]$_σ$ 'alive' > Ved. *jīvá-*, etc.
2. *[bʰé]$_σ$[roh$_2$]$_σ$ 'I carry' > Lat. *ferō*, Gk. *φέρω*, etc.
3. *[dʰuh$_2$]$_σ$[mó-]$_σ$ 'smoke' > Ved. *dhūmá-*, Lat. *fūmus*, etc.

To sum up, it seems exceedingly likely that laryngeals were moraic in coda position, and so laryngeal loss in the sequence *-əh$_x$]$_σ$ should trigger CL. Since other phonological processes cannot be utilized to explain the problem at hand, we are led to conclude that there was something "special" about *[ə] that led to short vocalisms in the IE languages.

4 PIE *[ə] as a weightless vowel

Cross-linguistically, there are four basic factors that determine the length of a vowel in a word: (1) vowel quality, (2) stress, (3) the number of syllables in the word, and (4) whether the vowel is found in an open or closed syllable.[18] In all four of these regards, PIE *[ə] in the sequence * əh$_x$]$_σ$ comes out short: (1) [ə] is typically the shortest vowel of a vowel system, if a language possesses a [ə] phoneme or allophone;[19] (2) *[ə] is always unstressed in PIE—there are no securely reconstructible cases of accented vocalized laryngeal; (3) *[ə] is always found in the initial syllable of polysyllabic words (such as *[dʰəh$_1$]$_σ$[tós]$_σ$ 'placed');[20] and (4) *[ə] is always found in a closed syllable *[pəh$_2$]$_σ$[trés]$_σ$ 'father (gen.sg.)', *[dʰəǵʰ]$_σ$[més]$_σ$ 'earth (gen.sg.)'). Put together, these facts argue strongly in favor of the idea that PIE *[ə] was an *extremely* short vowel.

Such brevity holds ramifications for PIE phonology. As Gordon (2006:45) notes, in many of the world's languages vowels must have some minimal duration in order

[17] Cited here in Received Pronunciation.

[18] Ladefoged 2005:72.

[19] Cf. Flemming 2009:87: "The medial schwa vowels [in English (AMB)] ... average 64 ms ... By comparison, tense vowels can be as long as 300 ms in citation forms ... and are on the order of 150 ms in fluent speech."

[20] I explicitly reject the reconstruction of any word-medial or word-final instances of schwa primum for PIE, for which I refer the reader to Byrd 2015:14–7. Thus, */dʰugh$_2$ter-/ 'daughter' was pronounced as *[dʰugh$_2$ter-], not ˣ[dʰugh$_2$əter-] and */(e)mleu̯h$_2$t/ 'spoke' as *[(e)mleu̯h$_2$t], not ˣ[(e)mleu̯h$_2$ət].

to receive a mora. Mayrhofer was therefore on the right track in his assumption of an "überkurzer Sproßvokal"—PIE *[ə] was just too short to receive a mora. The assumption that *[ə] was a weightless vowel would directly explain the lack of CL in the PIE sequence *-əh$_x$]$_\sigma$, as weightless vowels are frequently invisible to phonological processes, including CL (Gordon 2006). One such example may be found in Sliammon [ɬáʔamɪn], a Central Coast Salish language spoken in British Columbia (Blake 2000), in which a short vowel is monomoraic, a long vowel or sequence of vowel plus consonant bimoraic, and [ə] is non-moraic, consisting of a bare nucleus not associated with any mora. In Sliammon one of the functions that epenthetic schwa serves is to satisfy certain syllable structure constraints (such as *COMPLEXONSET); similarly, the purpose of PIE *[ə] was to satisfy the syllable structure constraint MST in addition to other highly ranked markedness constraints.[21] As evidenced by CL, coda consonants in Sliammon are moraic (Blake 2000:106).

(5) Sliammon Compensatory Lengthening

1.	/gaʔt'ᶿap/	→	[gá:t'ᶿʌpʰ]	'drive, steer'
2.	/tiʔta/	→	[tí:tʌ]	'that one (gen.)'
3.	/tih/	→	[tí:]	'big'
4.	/sə́ʔp'iqʷànθas/	→	[sáʔp'ɛqʷà:θʌs]	'he hit me on the head'

Examples of consonant deletion following [ə] are quite rare in Sliammon, due to a lack of CL in unstressed syllables (Blake 2000:109) and a constraint blocking stressed [ə] in open syllables (Blake 2000:231). However, in sequences of [ə] + glide, we do find fusion of the two segments into a *short* vowel, which necessitates that [ə] be weightless (Blake 1992:37, 86):

(6) Sliammon Schwa Diphthongs

1.	/ə + y/ → [i]	/səy-səy-say'/	→	[sísisəy']	'they are afraid'
2.	/ə + w/ → [u]	/təw-towmay'ə/	→	[tútuumàyə́]	'west wind'

Kager (1990:248) describes a similar situation for Dutch, where (as in Sliammon) short vowels are monomoraic, long vowels and the sequence vowel plus consonant are bimoraic, and /ə/ is non-moraic. As expected, /ə/ is never lengthened via CL if a coda consonant is deleted (Booij 1995:139–40), unlike short vowels (cf. Booij 1995:148).

(7) Deletion of Coda /n/ in Dutch

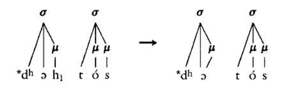
1.	*open*	/opən/	→	[opə]	'open'
2.	*kuikentje*	/kœykən-tjə/	→	[kœykətjə]	'chicklet'
3.	*on-weer*	/ɔn-ver/	→	[ɔ̃:ver]	'thunderstorm'
4.	*on-zeker*	/ɔn-zekər/	→	[ɔ̃:zekər/	'uncertain'

[21] See Byrd 2015:128–32.

As in Sliammon and Dutch, I propose that the PIE vowel system contained three types of syllable nuclei at the surface: monomoraic (*[i, e, a, o, u]), bimoraic (*[ī, ē, ā, ō, ū]), and non-moraic (*[ə]).[22]

We may now return to the etymon cited above, */dʰh$_1$tós/ 'placed', whose original moraic structure was *[dʰəh$_{1\mu}$tó$_\mu$s$_\mu$] in PIE. At whatever point laryngeal loss occurred within the sequence *-əh$_x$]$_\sigma$ (whether within late PIE or in the IE daughter languages), the mora once linked to the laryngeal became associated with the preceding weightless vowel *[ə], resulting in a true, monomoraic vowel, *ə$_\mu$. It is in this way that CL does in fact occur:

(8) PIE *[dʰəh$_1$tós] 'placed' > post-PIE *[dʰə$_\mu$]$_\sigma$[tós]$_\sigma$



This monomoraic vowel later merges with other vowels within the prehistory of each IE language family: Gk. *e*, *a*, *o*, IIr. *i*, elsewhere *a*. But what about schwa secundum, by which I mean PIE *[ə] that was not immediately followed by a laryngeal? In all languages but one, this weightless *[ə] merged together with the inherited monomoraic schwa: Lat. ***a*** (*quattuor* 'four' < **kʷətu̯ṓr*), Hitt. ***a*** (*taknaš* 'earth (gen.sg.)' < **dʰəǵʰmés*), Toch. ***a*** (*katnaṃ*, A *knāṣ* 'strew' < **kədnah$_2$-*).[23] But in Greek, which is famously conservative in its vocalisms, a distinction is maintained. Monomoraic *ə$_\mu$ merges with one of three non-high vowels (/e, a, o/), while weightless *[ə] merges with /i/, one of the shortest vowels in its phonemic inventory,[24] continuing its extremely brief pronunciation from PIE. This /i/ (< *[ə]) was likely maintained as the default epenthetic vowel in Proto-Greek, utilized in later inner-Greek formations such as *ῥίζα* 'root' (< **u̯rídi̯ă*) and *ἰπνός* 'oven' (< **sipnós*).[25]

All of this brings us back to where we began—with Sanskrit, in which vocalized laryngeals merged together with long [ī] in pre-consonantal word-final position (*[(e)mleu̯h$_2$t] > Skt. *ábravīt*) and short [i] elsewhere (*[pəh$_2$tḗr] > *pitā́*, *[dʰugh$_2$tḗr] > *duhitā́*). With the above taken into consideration, we would perhaps expect a short [i] across the board, given the brevity of the epenthetic vowel in PIE. So how did Indic [ī] come about? Recall that *[ə] only surfaced in word-initial syllables in PIE; thus,

[22] Though I have chosen to work within a framework that assumes moras, my hypothesis is entirely compatible with the ideas of Kavitskaya (2002), who proposes that compensatory lengthening directly results from the phonologization of vowel length upon segment deletion.

[23] Ringe 1996:65–6.

[24] High vowels are universally shorter than low vowels; see Lindblom 1963, Lehiste 1970, Gussenhoven 2004.

[25] Following Vine 1999.

PIE *[pəh_2tḗr] beside *[d^{h}ugh_2tḗr], *[(e)mleu̯h_2t]. Perhaps inherited *[ə] was utilized in Proto-Indo-Iranian to fix an illicit laryngeal sequence in word-final position: *[amrau̯h_xt] → *[amrau̯əh_xt]. It is well-known that vowels are cross-linguistically longer in final syllables than in non-final ones,[26] and so it is conceivable that this length was transferred when the merger of *[ə] with /i/ occurred: non-final *[ə] > /i/, final *[ə] > /ī/. But such an explanation does not account for why short [i] is produced in absolute word-final position; thus, */méǵh_2/ > *máhi* 'great', not ˣ*máhī*.

Since laryngeal vocalization in word-final position was a post-PIE, i.e. Indo-Iranian process, it is possible that the change of PIE *[ə] to PIIr. *[i] preceded word-medial and word-final vocalization, with **monomoraic** *[i] becoming the default epenthetic vowel in Proto-Indo-Iranian, as in Proto-Greek. To account for the differences in length (as has been done in the past), we may suppose that epenthetic *[i] was inserted **before** the laryngeal in the word-final sequence * *CHC#*, triggering CL on the preceding vowel after laryngeal loss: */amrau̯Ht/ → *[a]$_\sigma$[mra]$_\sigma$[u̯iHt]$_\sigma$ > *ábravīt*. Crucially, epenthetic *[i] was inserted **after** the laryngeal in the other environments, and it is for this reason that CL did not occur in word-medial or absolute word-final position: */d^{h}ugh_2tā́r/ → *[d^{h}ug^h]$_\sigma$[h_2i]$_\sigma$[tā́r] > *duhitā́*, */máȷ́h_2/ → *[máȷ́^{h}]$_\sigma$[h_2i]$_\sigma$ > *máhi*. While the aspiration found in *duhitā́* and *máhi* appears to prove the position of the epenthetic vowel, it must be noted that we find aspiration within the sequence *-*CHC#* as well: PIE *(e)g^{h}rebh$_2$t* > Skt. *ágrabhīt* 'grabbed'.[27] However, it is not inconceivable that analogy could account for these facts (as surely must be true for *gr̥bhṇā́ti* and other forms), a suggestion I leave for future research.

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[26] For instance, in English, non-final schwa vowels (a̲bove) average a length of 64 ms, while word-final schwas (sofa̲) have a mean duration of 153 ms (Flemming and Johnson 2007).

[27] In addition to *gra(b)h-*, *LIV*² cites two other roots of the shape *-*ePh₂* (where P = any unaspirated stop) that directly attest root aorists in the singular: *máthīt* 'steals' (< **méth₂t*) and *(má) lekhiṣ* '(don't) scratch!' (< **rei̯k$^{(w)}$h₂s*).

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A Note on TS 2.4.12.2–6*

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The legend involving Indra and Vr̥tra was transmitted in various contexts from the *R̥gveda* onwards. One of these concerns Tvaṣṭr̥'s misaccentuation of *indraśatruḥ* when, in an effort to have an offering he made in the *āhavanīya* fire grow up as the destroyer of Indra, Tvaṣṭr̥ said (TS) *svāhendràśatrur vardhasva* (MS *svā́héndràśatrur vardhasva*), uttering a *bahuvrīhi* compound with high pitch on its first syllable (*indràśatruḥ/índràśatruḥ*) instead of a *tatpuruṣa* compound with high pitch on its final syllable (*i̱ndra̱śa̱truḥ/i̱ndra̱śa̱trúḥ*). As a consequence, although Tvaṣṭr̥ wished to create a destroyer of Indra, what he brought about was Vr̥tra whose destroyer would be Indra.[1]

Parallel texts of this story appear in the *Maitrāyaṇīsaṁhitā* and the *Taittirīyasaṁhitā*.

MS 2.4.3

(a) *sá vā́ i̱mā́ḥ sárvàḥ sro̱tyā́ḥ páry àśaya̱t* ˈ *tásmā̱d vā́ índrò ʼbíbhe̱t* ˈ *tásmā̀d u̱ tváṣṭā̀bibhe̱t* ˈ *tásyéndra̱ḥ práttìm aiccha̱t* ˈ *tám àsmai̱ prā́yàccha̱t* ˈ *tásmai̱ tváṣṭā̱ vájràm asiñca̱t* ˈ (b) *tápo̱ vai sá vájrà āsī̱t* ˈ *tám u̱dyáma̱n nā́śàkno̱d* ˈ *àtha̱ vaí tárhi̱ viṣṇùr a̱nyā́ de̱vátā̀sī̱t* ˈ *sò ʼbravī̱d* ˈ *víṣṇā̱ éhī̱dám ā́ hàrisyāvo̱ yénā̱yám i̱dám íti̱* ˈ *sá tre̱dhā́tmā̱nā́v̐ vi̱ ny àdhattābhipa̱ryā́vàrtád abibhed* ˈ *a̱syā́n tŕ̥tī̀yam a̱ntárìkṣe̱ tŕ̥tī̀yan di̱ví tŕ̥tī̀ya̱m̐* ˈ (c) *sá yád a̱syā́n tŕ̥tī̀ya̱m ā́sī̱t téna̱ vájra̱m úd àyaccha̱d víṣṇvànuṣṭhita̱ḥ* ˈ *sá vájra̱m údyàtan dr̥̥ṣṭvā́bìbhe̱t* ˈ *sò ʼbrávī̱d* ˈ *ásti̱ vā́ i̱dán tyásmìnna̱ntár vī̱ryà̱n* ˈ *tát te̱ prádā̀syāmi̱* ˈ *mā́ mà vadhī̱r itì* ˈ *tád vā́ àsmai̱ prā́yàccha̱t* ˈ *tát práty àgr̥hṇād ádhā̀ mā íti̱* ˈ *tád víṣṇàve ʼti̱ prā́yàccha̱t* ˈ *tád víṣṇu̱ḥ práty àgr̥hṇād a̱smā́sv índrà indri̱yán dàdhātv a̱smā́n rā́yò ma̱ghávā̀naḥ sacantām* | *a̱smā́kàm̐ santv ā̱śíṣa̱ḥ* (MS 1.4.1.5) || *íti̱* ˈ (d) *sò ʼve̱d ásti̱ vā́vā́smìnna̱ntár vī̱ryà̱m íti̱* ˈ *sá yád a̱ntárìkṣe̱ tŕ̥tī̀ya̱m ā́sī̱t téna̱ vájra̱m úd àyaccha̱d víṣṇvànuṣṭhita̱ḥ* ˈ *sá vájra̱m údyàtan dr̥ṣṭvā́bìbhe̱t* ˈ *sò ʼbrávī̱d* ˈ *ásti̱ vā́ i̱dán tyásmìnna̱ntár vī̱ryà̱n* ˈ *tát te̱ prádā̀syāmi̱* ˈ *mā́ mà vadhī̱r íti̱* ˈ *tád vā́ àsmai̱ prā́yàccha̱t* ˈ *tát práty àgr̥hṇād dvír mā̀dhā íti̱* ˈ *tád*

* Stephanie Jamison is admired for her interpretation of Vedic texts, combining contextual and grammatical analysis. I am happy to be able to honor her accomplishments with a small study in this vein.

[1] MS 2.4.3: *ítíndrasyā́haìnga̱m̐ śátru̱m ácìkīrṣa̱d* ˈ *índràm asya̱ śátrùm akaro̱t*. The texts as recited exhibit segmental and supra-segmental sandhi effects across sentences, so that I use a superscript daṇḍa ('ˈ') to indicate sentence divisions, but daṇḍas ('|') for verse divisions. I also do not indicate different varieties of *svarita* syllables and *anusvāra*.

víṣṇàve ’ti̱ prā́yàccha̱t | *tád víṣṇu̱ḥ práty àgr̥hṇā̱d a̱smā́sv índrà indri̱yán dàdhātv a̱smā́n rā́yò ma̱ghávā̀naḥ sacantām* | *a̱smā́kàṁ santv ā̱śíṣa̱ḥ* || *íti̱* | (e) *sò ’ve̱d ásti̱ vā́vā́smìnna̱ntár vī̱ryà̱m íti̱* | *sá yád di̱ví tŕ̥tī̀ya̱m ā́sī̱t téna̱ vájra̱m úd àyaccha̱d víṣṇvà̀nuṣṭhita̱ḥ* | *sá vájra̱m údyàtan dr̥ṣṭvā́bìbhe̱t* | *sò ’brávī̱d* | *ásti̱ vā́ i̱dán tyásmìnn-a̱ntár vī̱ryà̱n* | *tát te̱ prádā̀syāmi̱* | *mā́ mà vadhīḥ* | *sa̱ndhā́n nu̱ sán dàdhāvahai̱ yáthā̱ tvā́m e̱vá prà vi̱śā́nī́ti̱* | *sò ’bravī̱d* | *yán mám prà vi̱śéḥ kím me̱ tátàḥ syā̱d íti̱* | *sò ’bravīt* | *tvā́m e̱véndhī̀ya̱* | *táva̱ bhógā̀ya̱ tvā́m prá vìśeya̱m íti̱* | *tád vā́ àsmai prā́yàccha̱t* | *tát práty àgr̥hṇād trír mā̀dhā íti̱* | (f) *tád vā́vá traìdhāta̱vyà̀* | *sa̱hásra̱ṁ vā́ àsmai̱ tát prā́yàccha̱d ŕ̥ca̱ḥ sā́mā̀ni̱ yájū̀ṁṣi̱* | *yád vā́ i̱dáṁ kíñca̱ tát traìdhāta̱vyà̀* | *tád ā̀pnoti pa̱śū́n e̱vá* |

TS 2.4.12.2–6

(a) *sa i̱mā̃̀ l lo̱kān àvr̥ṇo̱d* | *yad i̱mā̃̀ l lo̱kān àvr̥ṇo̱t tad vr̥trasyà vr̥tr̥tvan* | *tasmā̱d indrò ’bibhe̱d api̱ tvaṣṭā̱* | *tasmai̱ tvaṣṭā̱ vajràm asiñca̱t* | (b) *tapo̱ vai sa vajrà āsīt* | *tam udyàntun nāśà̂kno̱d* | *atha̱ vai tarhi̱ viṣṇùr a̱nyā de̱vatā̀sīt* | *sò ’bravī̱d* | *viṣṇa̱v ehī̱dam ā hàriṣyāvo̱ yenā̱yam i̱dam iti̱* | *sa viṣṇùs tre̱dhātmāna̱ṁ vi ny àdhatta pr̥thi̱vyān tr̥tī̀yam a̱ntarìkṣe̱ tr̥tī̀yan di̱vi tr̥tī̀yam* | *abhiparyāva̱rtād dhy abī̀bhe̱d* | (c) *yat pr̥̀thi̱vyān tr̥tī̀ya̱m āsī̱t tenendro̱ vajra̱m ud àyaccha̱d viṣṇvànusthita̱ḥ* | *sò ’bravī̱n* | *mā me̱ pra hā̱r* | *asti̱ vā i̱dam mayì vī̱ryàn* | *tat te̱ pra dā̀syā̱mīti̱* | *tad àsmai̱ prāyàccha̱t* | *tat praty àgr̥hṇā̱d adhā̱ meti̱* | *tad viṣṇa̱ve ’ti̱ prāyàccha̱t* | *tad viṣṇu̱ḥ praty àgr̥hṇād a̱smāsv indrà indri̱yan dàdhā̱tv iti̱* (TS 1.3.6.1) | (d) *yad a̱ntarìkṣe̱ tr̥tī̀ya̱m āsī̱t tenendro̱ vajra̱m ud àyaccha̱d viṣṇvànusthita̱ḥ* | *sò ’bravī̱n* | *mā me̱ pra hā̱r* | *asti̱ vā i̱dam mayì vī̱ryàn* | *tat te̱ pra dā̀syā̱mīti̱* | *tad àsmai̱ prāyàccha̱t* | *tat praty àgr̥hṇā̱d dvir mā̀dhā̱ iti̱* | *tad viṣṇa̱ve ’ti̱ prāyàccha̱t* | *tad viṣṇu̱ḥ praty àgr̥hṇād a̱smāsv indrà indri̱yan dàdhā̱tv iti̱* | (e) *yad di̱vi tr̥tī̀ya̱m āsī̱t tenendro̱ vajra̱m ud àyaccha̱d viṣṇvànusthitaḥ* | *sò ’bravī̱n* | *mā me̱ pra hā̱r* | *yenā̱ham i̱dam asmi̱ tat te̱ pra dā̀syā̱mīti̱* | *tvī3 ity àbravīt* | *sa̱ndhān tu san dàdhāvahai̱* | *tvām e̱va pra vìśā̱nīti̱* | *yan mām prà vi̱śeḥ kim mā̀ bhuñjyā̱ ity àbravī̱t* | *tvām e̱vendhī̀ya̱* | *tava̱ bhogàya̱ tvām pra vìśeya̱m ity àbravī̱t* | *ta̱ṁ vr̥traḥ prāvìśad* | *u̱dara̱ṁ vai vr̥traḥ* | *kṣut khalu̱ vai mànu̱ṣyàsya̱ bhrātr̥̀vyo̱* | *ya e̱va̱ṁ veda̱ hanti̱ kṣudha̱m bhrātr̥̀vya̱n* | *tad àsmai̱ prāyàccha̱t* | *tat praty àgr̥hṇā̱d trir mā̀dhā̱ iti̱* | *tad viṣṇa̱ve ’ti̱ prāyàccha̱t* | *tad viṣṇu̱ḥ praty àgr̥hṇād a̱smāsv indrà indri̱yan dàdhā̱tv iti̱* | (f) *yat triḥ prāyàccha̱t triḥ pra̱tyagr̥̀hṇā̱ tat tri̱dhātòs tridhātu̱tva̱ṁ* | *yad viṣṇùr a̱nv atìṣṭhata̱ viṣṇa̱ve ’ti̱ prāyàccha̱t tasmā̀d aindrāvaiṣṇa̱vaṁ ha̱vir bhàvati̱* | *yad vā i̱daṁ kiñca̱ tad àsmai̱ tat prāyàccha̱d r̥ca̱ḥ sāmā̀ni̱ yajū̀ṁṣi sa̱hasra̱ṁ vā àsmai tat prāyàccha̱t tasmā̀t sa̱has-ràdakṣiṇam* |

Despite differences in wording and some differences in content, especially at the end of the recounting, it is evident that the two versions closely parallel each other.

(a) Vr̥tra grew to cover a huge expanse, so that both Indra and Tvaṣṭr̥ feared him. Tvaṣṭr̥ created a weapon, the *vajra*, for Indra, and sprinkled it to give it magic power.

(b) The *vajra* was comparable to ascetic ardor; hence Indra could not lift it. He called on Viṣṇu to assist him, so that they might acquire the power in Vr̥tra whereby he enveloped all. Viṣṇu then divided himself into three parts, out of fear of being surrounded by Vr̥tra. He placed one third each on earth, in the space between heaven and earth, and in heaven.

(c)–(e) Assisted by the part of Viṣṇu on earth, in the interspace, and in heaven, Indra lifts the *vajra* three times. Each time, Vr̥tra is afraid and asks Indra not to strike him down, offering to give him a power (*vīryam*) that is within him. The first and second times, he gives the power to Indra, who accepts it and then passes it on to Viṣṇu, because he had supported him. Viṣṇu accepts, reciting a mantra (MS 1.4.1.5, TS 1.3.6.1). The third time, Indra accepts the offer, but then Vr̥tra asks that they make an agreement under which he would enter Indra. He then entered Indra[2] and gave him the power, which Indra accepted and once more passed on to Viṣṇu.[3]

(f) Finally, the texts bring out the association with the ritual—called *tridhātu*, *tridhātavatī*, *traidhātavyā*—in the context of which the legend is recounted. Vr̥tra gave his power three times to Indra, who accepted it three times and passed it on to Viṣṇu, saying he had supported him three times, and the offering dedicated to Indra and Viṣṇu has three constituent elements, two cakes of rice with a cake of barley between them, with four potsherds each containing a group of three such cakes.[4] Vr̥tra gave to Indra that power which is the source of all that constitutes the world of the Vedas, in the form of *r̥c*, *sāman*, and *yajus*—tantamount to a thousand varieties—so that the fee paid to the priests amounts to a thousand.

Given the general parallelism of the texts in question, one expects that *sa̱ndhā́n nu̱ sán dàdhāvahai̱ yáthā̱ tvā́m e̱vá prà vi̱śā́nī́ti̱* | *sò ’bravī̱d* | *yán mám prà vi̱śéḥ kím me̱ tátàḥ syā̱d íti̱* | *sò ’bravī̱t* | *tvā́m e̱véndhī̀ya̱* | *táva̱ bhógā̀ya̱ tvā́m prá vìśeya̱m íti̱* | ("Let us make a pact, so that I may enter you. He [Indra] said, 'If you should enter me, what would I get from that?' He [Vr̥tra] said, 'I would light you up, I would enter you for your enjoyment.'") in (e) of the *Maitrāyaṇīsaṁhitā* and *sa̱ndhān tu san dàdhāvahai̱* | *tvām e̱va pra vìśā̱nīti̱* | *yan mām prà vi̱śeḥ kim mā̀ bhuñjyā̱ ity àbravī̱t* | *tvām e̱vendhī̀ya̱* |

[2] For the moment, I pass over the *Taittirīya* phrase *yan mām prà vi̱śeḥ kim mà bhuñjyā̱ḥ* and its parallel in the *Maitrāyaṇī* text. See below.

[3] The *Taittirīya* version includes a parenthetical remark—prompted by *tava̱ bhogàya̱ tvām pra vìśeya̱m* "I would enter you so that you could enjoy (food)"—that hunger is the enemy of man and one who knows that Vr̥tra entered Indra thereby destroys hunger and his enemy.

[4] TS 2.4.12.7: *yat triḥ prāyàccha̱t triḥ pra̱tyagr̥̀hṇā̱ tat tri̱dhātòs tridhātu̱tvam*. TSB II.1.325.10–2: *yat trir ityādi: dānaprati-grahayos trirāvr̥ttyā tridhātutvam . . . trayo dhātavaḥ dānāni dhāraṇāni vā asya tridhātur vīryaviśeṣaḥ tatsambandhī yāgaḥ traidhātavīyam | iha tv abhedenocyate*. TSS II.1.324.27–325.21: *vr̥trasya trivārapradānenendrasya ca trivārapratigrahaṇena ca vīryarūpasya puroḍāśasya haviṣas tridhābhinnasya tridhātu nāma sampannam | trayo dhātavaś catuṣkapālarūpā bhedā yasya dvādaśa puroḍāśasya so ’yaṁ tridhātuḥ*. The qualification *tridhātu* applies to the power or the oblation and, by extension, to the rite. Additional details are not crucial for the present discussion.

tava̱ bhogàya̱ tvām pra vìśeya̱m ity àbravī̱t | in (e) of the *Taittirīyasaṁhitā* should also be comparable in content. Accordingly, *yan mām prà vi̱śeḥ kim mà bhuñjyā̱ḥ* should mean, "If you entered me, would you (then) help me?"

Commentators on the *Taittirīyasaṁhitā*, on the other hand, consider that *bhuj* of *bhuñjyāḥ* in *kim mà bhuñjyā̱ḥ* is used in the sense 'consume, eat': *kiṁ māṁ praviśya mām eva bhuñjyāḥ kiṁ mām eva bhoktum ārabhase* (TSB II.1.323.17–324.11) "After entering me... will you begin to consume me alone (and not food)?" and *yadi tvaṁ māṁ praviśeḥ tadā kiṁ mām eva bhokṣyase* (TSS II.1.324.18) "If you enter me, will you then consume me alone?"[5] Under this interpretation, Bhaṭṭabhāskara and Sāyaṇa need to supply a transition between this question and Vṛtra's reply, telling Indra that he should not think this way, that he would not eat him; on the contrary, he would light up Indra by dint of being his gastric fire: *atha vṛtraḥ abravīt maivaṁ mantavyaṁ tvām eva indhīya dīpayeyam*... (TSB II.1.324.11–2), *tato vṛtra indram abravīt nāhaṁ tvāṁ bhokṣye kiṁ tu tvām indhīya udarāgnipāṭavena prakāśayeyaṁ dīpayeyam* (TSS II.1.324.19).

In addition, the active *bhuñjyāḥ* does not conform to the usual morphology of *bhuj* meaning 'consume, enjoy'. Used in this sense, the verb regularly takes middle endings in texts from earliest Vedic onwards (see Cardona 1987:65), and the *Taittirīyasaṁhitā* agrees with this pattern, as can be seen in the following passages.

(1) 2.5.2.6–7: *sābràvī̱d* | *varàv̐ vṛ̥ṇai̱ mayye̱va sa̱tobhayèna bhunajadhvā̱ iti̱* | *tad gaur āhàra̱t* | *tasmā̱d gavì sa̱tobhayèna bhuñjata* | *e̱tad vā a̱gnes tejo̱ yad ghṛ̥̱tam e̱tat somàsya yat payo̱* | "She [the cow] said, 'I would choose a reward; you all should consume both (those nourishments) that are in me alone.' The cow fetched that (splendor). Accordingly [*tasmāt* 'thence'], one consumes both (ghee and milk) which are in a cow. Verily, ghee is Agni's splendor, milk Soma's."

(2) 5.2.8.7–8: *audùmbaram bhava̱ty* | *ūrg vā ùdu̱mbara̱* | *ūrjàm e̱vāvà runddhe* | *madhya̱ta upà dadhāti* | *madhya̱ta e̱vāsmā̱ ūrjàn dadhāti̱* | *tasmàn madhya̱ta ū̱rjā bhùñjata* | "(The mortar) is made of *udumbara* wood. The *udumbara* is strength. He (thus) acquires strength. He places (the *udumbara* mortar) in the middle (of the altar). He puts strength in (its) very middle. Accordingly, one enjoys nourishment in the middle."[6]

(3) 6.1.3.3–4: *ūrg vai śa̱rā* | *yac chàra̱mayī̱ mekhàlā̱ bhava̱ty ūrjàm e̱vavà runddhe* | *madhya̱taḥ san nàhyati* | *madhya̱ta e̱vāsmā̱ ūrjàn dadhāti̱* | *tasmàn madhya̱ta ū̱rjā bhùñjate* | "The reeds are strength. In that the girdle is made of reeds, he acquires that very strength. He girds (the *yajamāna*) in the middle. He (thus) places strength in his very middle. Accordingly, one enjoys nourishment in the middle."[7]

[5] Once he enters Indra, Vṛtra serves as the gastric fire, consuming enemies in the form of hunger. It is thus understandable that commentators associate *bhuñjyāḥ* with consuming.

[6] *Madhyataḥ* can be understood to refer to the middle of one's life, when one consumes most food and enjoys most strength, or to the middle of the body, where nourishment is held. Bhaṭṭabhāskara (TSB III.2.20–1) understands both senses here: *madhyame vayasi dehamadhye vā*. See nn. 8, 11.

[7] According to Bhaṭṭabhāskara (TSB IV.1.28.12–3) *ūrj* denotes either food or strength and *madhya* signifies either the middle of the body or the mid-stage of life; he interprets the instrumental as one of accompani-

(4) 6.1.4.1: *audùmbaro bhava̱ty* | *ūrg vā ùdumbara̱* | *ūrjàm e̱vāvà runddhe̱* | *mukhèna̱ sammìto bhavati* | *mukha̱ta e̱vāsmā̱ ūrjàn dadhāti̱* | *tasmàn mukha̱ta ū̱rjā bhùñjate* "(The staff) is made of *udumbara* wood. The *udumbara* is truly strength/nourishment. He (thus) acquires strength/nourishment. (The staff) is of the same height as the mouth. He places strength/nourishment just in his mouth. Accordingly, one takes nourishment in the mouth."[8]

(5) 6.2.5.4: *yad àsya ma̱dhyandìne madhyarā̱tre vra̱tam bhavàti madhya̱to vā annèna bhuñjate madhya̱ta e̱va tad ūrjàn dhatte̱* | "In that he takes food[9] at midday or in the middle of the night—one does indeed enjoy food in the middle—thereby he establishes strength for himself in the middle."[10]

(6) 6.2.10.6–7: *u̱dara̱v̐ vai sada̱* | *ūrg ùdu̱mbarò* | *madhya̱ta audùmbarīm minoti* | *madhya̱ta e̱va pra̱jānā̱m ūrjàn dadhāti̱* | *tasmàn madhya̱ta ū̱rjā bhùñjate* | "The shed is verily the belly, *udumbara* strength. He sets up the post made of *udumbara* wood in the middle. He thus establishes strength in the middle of creatures. Accordingly, one takes nourishment in the middle."[11]

(7) 6.3.4-5: *nābhida̱ghne pàri vyayati* | *nābhida̱ghna e̱vāsmā̱ ūrjàn dadhāti̱* | *tasmàn nābhida̱ghna ū̱rjā bhùñjate* | "He wraps (the *yūpa* pole) at navel height. He (thereby) puts food for him [the *yajamāna*] just at navel height. Accordingly, one enjoys food at the height of one's navel."[12]

(8) 6.5.2.3: *pu̱rastà̱d u̱kthasyā̀va̱nīya̱ ity ā̀huḥ* | *pu̱rastā̱d dhy āyùṣo bhu̱ṅkte* | *màdhya̱to*

ment: *madhyata eva śarīramadhya eva* | *asmai ūrjam annaṁ balaṁ vā dadhāti sthāpayati* | *yad vā madhyamāyām avasthāyām*. To Sāyaṇa (TSS I.1.244.26–7) *ūrj* signifies the essence of food and *bhuj* means 'hold': *asya yajamānasya śarīramadhye rasaṁ sthāpayati* | *tasmat sarve 'pi madhya ūrjaṁ bhuñjate rasaṁ dhārayantīty arthaḥ*.

[8] Bhaṭṭabhāskara (TSB IV.1.36.11–2) interprets *ūrj* as denoting food (*anna*) throughout this passage, paraphrases *ūrjā bhuñjate* with *annena bhujikriyāṁ nirvartayanti* ("carry out the act of eating by means of food"), and notes that this is equivalent to *annaṁ bhuñjate* ("eat food"): *tasmāt mukhataḥ sarve 'pi ūrjā annena bhuñjate bhujikriyāṁ nirvartayanti annaṁ bhuñjate iti*.

[9] In the preceding passage (TS 6.2.5.2–3) the different nourishments an initiate takes according to vows are specified: sour gruel (*yavāgū*) for a kṣatriya, boiled milk mixed with ghee (*āmikṣā*) for a vaiśya, milk (*payas*) for a brāhmaṇa.

[10] Bhaṭṭabhāskara (TSB IV.1.139.14–6) interprets *madhyataḥ* as referring to the mid-stage of life and paraphrases *annena bhuñjate* with *annena saha māṁsādi prabhūtaṁ bhuñjate* ("with food—eat a lot of meat and such") and *ūrjan dhatte* with *annaṁ sthāpayati* ("establishes food"): *yat yasmād asya madhyandine madhyarātre vrataṁ bhavati tasmān madhyato madhyame vayasi annena saha māṁsādi prabhūtaṁ bhuñjate* | *madhyama eva sthāna udara ūrjam annaṁ dhatte sthāpayati*. Sāyaṇa (TSS I.1.328.6–7) explains that one consumes food in the mouth and holds it in the belly: *mukhamadhye 'nnasya bhojanam udaramadhye ca dhāraṇaṁ yathā loke tathaivātrāpi madhyāhne madhyarātre vā vrataṁ kartavyam*.

[11] According to Bhaṭṭabhāskara (TSB IV.1.166.22-23), *madhya̱ta ū̱rjā bhùñjate* conveys that creatures are most content in the middle of their life span: *tasmāt madhyataḥ madhyame vayasi ūrjā bhuñjate bhūyiṣṭhena sukhitā bhavanti*.

[12] That is, the stomach. Bhaṭṭabhāskara (TSB IV.1.197.16–20) explains that the priest places food for the *yajamāna* in the area of the stomach, not higher and not lower; this explains how people eat food that is located at the height of their stomach: *ūrk annam* ... *nābhidaghne nābhipramāṇa evodaradeśe asmai yajamānasya ūrjaṁ sthāpayati nordhvaṁ napy adho vigamayati* | *tasmān nābhidaghna eva pradeśe sthitayā ūrjā annena bhuñjate*. Sāyaṇa (TSS I.1.427.12–3) takes *ūrjā bhuñjate* to mean "hold food that has been consumed": *asmā asya yajamānasya nābhidaghne udare ūrjaṁ sthāpayati* | *tataḥ sarve tatrorjā bhuñjate bhuktām ūrjaṁ dhārayanti*.

'vanīya ity à̀hur | *madhyamena hy āyùṣo bhuṅkta* | *ùttarārdhè 'vanīya ity à̀hur* | *uttamena hy āyùṣo bhuṅkte* | "(Some) say, '(The soma from the *dhruva* cup) should be poured (into the *hotṛcamasa* vessel) at the fore-part[13] of the *uktha*; for one eats at the beginning of one's life.' (Some) say, 'It should be poured at the mid part; for one eats in the middle of one's life.' (Some) say, 'It should be poured during the last part; for one eats during the last part of one's life.'"[14]

In (1)–(8), the middle forms *bhunajadhvai* (2pl. subj.), *bhuñjate* (3pl. ind.) are used, construed with instrumental forms (*ubhayena*, *ūrjā*) referring to what one consumes and enjoys.

In the following examples, the active forms *bhunakti*, *bhuṅktaḥ* signify helping. They are construed with instrumentals designating means used to help, and *bhuṅktaḥ* is construed with an accusative referring to an individual who is helped.

(9) TS 2.6.2.3: *yasyaì vīryèṇa pūrvārdhenā̀naḍvān bhunaktì jaghanārdhenà dhenuḥ* | "... by the power of which[15] an ox helps with its fore-part, a cow with its hind-part."[16]

(10) TS 2.6.2.4: *purastā̀llakṣmā puronuvākyā̀ bhavati* | *tasmā̀t pūrvārdhenā̀naḍvān bhùnakty* | *uparìṣṭāllakṣmā yājyā̀* | *tasmā̀j jaghanārdhenà dhenur* | *ya evā̀ṃ vedà bhuṅkta ènam etau* | "The pre-offering verse is marked at the front;[17] accordingly, an ox helps with its forepart. The offertory verse is marked at its later part;[18] accordingly, a cow (helps) with its hind-part. These two help him who knows thus."[19]

[13] That is, during the recitation of the first third of the tripartite *uktha śastra*.

[14] Commentators understand this to refer to different kinds of eating: during the first part of one's life, one eats frequently, whenever one wishes; during the middle part, one eats a great deal; and during the last part one is not capable of eating much though one wishes to eat. TSB IV.1.290.20–291.16: *āyuṣaḥ pūrvabhāge hi svairaṁ bhuṅkte puruṣaḥ | tasmād āyussambandhāya purastād evāvanayanaṁ kuryāt | madhyataḥ madhye śastrasyāvanetavyaḥ ... āyuṣaḥ madhyame hi bhāge prabhūtaṁ puruṣo bhuṅkte | uttarārdhe śastrasyāvnetavyaḥ ... uttame hi āyuṣaḥ bhāge śraddadhānaḥ bhuṅkte*. TSS I.1.562.26–8: *ukthaṁ śastram tac ca tredhā vibhajya pūrvabhāge śasyamāne 'vanayet | evam itarayor api | āyuṣaḥ pūrvabhāge bālye bahukṛtvo bhujyate | madhyame bhāge bahvannaṁ bhujyate | uttame bhāge śaktyabhāve 'pi bahu bhoktum icchati*. In the last stage, Sāyaṇa says, "even though one lacks the capacity, one wishes to eat a lot." By *śraddadhāno bhuṅkte* "eats/enjoys while confiding," Bhaṭṭabhāskara may mean that, though one lacks the capacity to eat much, one has the confidence that it is enough to carry one through.

[15] Here and in the preceding sentences, *yasyai* refers to the *śakvarī*, made up of seven pādas, combining the three gāyatrī pādas *agnir mūrdhā divaḥ kakut patìḥ pṛthivyā ayam | apā̀ṁ retā̀ṁsi jinvati* (TS 1.5.5.1 = TBr. 3.5.7.1, ṚV 8.44.16) and the four triṣṭubh pādas *bhuvò yajñasya rajàsaś ca netā yatrā̀ niyudbhìḥ sacàse śivābhìḥ | divi mūrdhānàn dadhiṣe svarṣā̀ñ jihvām àgne cakṛṣe havyavāhàm* || (TS 4.4.4.1 = TBr. 3.5.7.1, ṚV 10.8.6).

[16] That is, an ox helps with its shoulders, with which it draws a plow or a cart, and a cow helps with its udders. Bhaṭṭabhāskara (TSB II.490.10–1: *anaḍvān vāhanādinā pūrvārdhena prajāḥ bhunakti rakṣati | dhenuḥ kṣīrasravaṇādinā jaghanārdhena prajāḥ bhunakti*) and Sāyaṇa (TSS II.490.19–21: *kiñca tadīyena vīryeṇa balivardo lāṅgalaśakaṭa-vāhinā skandharūpeṇa svāminaṁ pālayati dhenuś ca kṣīrapradāneno-dhasāparabhāgena svāminaṁ pālayati*) respectively gloss *bhunakti* with *rakṣati*, *pālayati* ('guards, protects, keeps').

[17] The gāyatrī verse in question (see n. 15) has *agniḥ*, the deity's name, at the front.

[18] The deity name *agne* occurs in the last pāda of the triṣṭubh verse in question (see n. 16).

[19] Bhaṭṭabhāskara (TSB II.1.491.17: *evaṁveditāram etau anaḍvān dhenuś ca buṅktaḥ yathāyathaṁ saṁrakṣataḥ*) and Sāyaṇa (TSS II.1.492.15–6: *etasyobhayasya veditāram etau dhenvanaḍvāhau svasvopakāreṇa pālayataḥ*) gloss *bhuṅktaḥ* respectively with *yathāyathaṁ saṁrakṣataḥ* 'protect precisely as appropriate' and *svasvopakāreṇa pālayataḥ* 'take care through their respective help'. See n. 16.

In TS 2.4.12.6, the active form *bhuñjyāḥ* is construed with the accusative *mā̀* just as in (10) TS 2.6.2.4 *bhuṅktaḥ* is construed with the accusative *ènam*.

Textual parallelism and grammar thus combine to demonstrate that *kim mā̀ bhuñjyāḥ* in TS 2.4.12 means "Would you help me?"

Abbreviations

MS = *Maitrāyaṇīsaṁhitā*
ṚV = *Ṛgveda*
TBr. = *Taittirīyabrāhmaṇa*
TS = *Taittirīyasaṁhitā*
TSB = Bhaṭṭabhāskara's commentary on the *Taittirīyasaṁhitā*. See Sonatakke and Dharmadhikari 1970–2010.
TSS = Sāyaṇa's commentary on the *Taittirīyasaṁhitā*. See Sonatakke and Dharmadhikari 1970–2010.

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Proto-Indo-Iranian *_stríH-_ and PIE *_sór-_ 'female, woman'

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1. The earliest known adumbration of a PIE *_sór-_ 'female; woman' was Pott's proposal of a historical relation between Ved. _strí-_ 'woman' and the second syllables of PIE *_su̯ésor-_ 'sister' and of Lat. _uxor_ 'wife' (1833:9, 126, 214; 1835:554). Since the epenthesis *_-sr-_ > _-str-_ known from Goth. _swistar_ and OCS _sestra_ is absent from Old Indic,[1] Pott employed the still popular approach of pushing the problem back into the proto-language, additively reconstructing[2] a PIE *_swastr-_ and taking *_swasr-_ as an inner-PIE reduction thereof. But since PIE *_-str-_ otherwise remains intact[3] and *_-sor-_ unexplained by this approach, it has generally been rejected.[4] Kim's attempted rehabilitation (2005:133) leaves unmentioned the counterexamples presented by the roots _sram̥s-_ 'dissolve', _sridh-_ 'blunder', _srīv-_ 'fail', and the frequency of unepenthesized _-sr-_ internally.

Sturtevant (1949), energized by the Hittite feminines in _-ššara-_ and the Cappadocian gynonyms in _-šar_,[5] resuscitated Pott's connection of PIE *_sor-_ and Ved. _strí-_ without the epenthesis. He hypothesized (after Trost 1938:197) a PIE feminine *_sr-ī-_ 'female', continued in his opinion by the Greek theonym Ῥέᾱ, Ῥείη, which he saw as remade from the expected "_Rhíă_".[6] He understood Ved. _strí-_ to be the result of a contamination or blend of this *_srī-_ female' with the feminine agent-suffix _-trī-_. His

[1]As well as from Old Iranian, whose YAv. _strī-_ (8×) allows a PIIr. *_strí-_, *_stríH-_ to be reconstructed. Unacceptable are the pseudo-phonetics of Trost 1938:198. —I thank Michael Weiss for many helpful suggestions.

[2]On this procedure see _LIPP_ 1.50.

[3]Cf. PIE *_$h_2$str-_ 'star' in YAv. _tištriia-_, Gk. ἄστρα (_NIL_ 348); PIE *_sterh3-_ 'strew' in Gk. στρωτός, Lat. _strātus_; PIE *_ǵʰés-tr-o-_ 'of yesterday' > Lat. _hesternus_, Go. _gistra-dagis_ 'tomorrow'; PIE *_ens-tro-_ > ON _ístr_ 'omentum' etc.

[4]So explicitly Mayrhofer 1952:36 and 1955:118 (no longer mentioned in Mayrhofer 1976:522–3 and 1996:763); Eichner 1974:41 n. 45 (without discussion); Sihler 1977:43; Normier 1980:44-7; Ledo-Lemos 2002:104, 114, 123–4; Pinault 2012:242; Harðarson 2014:49.

[5]On these see now Hoffner and Melchert 2008:59 and Zehnder 2010.

[6]Nowhere else in Greek was a feminine nominative in *_-i̯a_ replaced by one in *_-i̯ā_, despite the oblique stem in *_-i̯ās_ (ἑταῖρα : ἑτάρη are alternative feminines to ἕταρος). Here Ῥέα will not be further considered.

interpretation has been accepted by Benveniste (1969:1.215) and Willi (2010:247) but rejected by Pinault (2012:24).

Sturtevant's *_srī-_ was meant as a feminization of PIE *_sór-_ 'female; woman' (by his time solidly reconstructable, see §5) by means of the feminine-marking suffix *_-ih_2-_. Since *_sór-_ was already feminine, the Proto-Indo-European extension *_sr-íh_2-_ would have been a hypercharacterization, specifically a hyperfeminization. Pleonasm or redundancy is a deep-seated and ever-recurring process in human language.[7] From the semantic field of interest at present can be cited Lat. _ianitrīcēs_ 'husband's brother's wives' and _mātrīx_ 'female for breeding', both hypercharacterizations of the already feminine _r_-stems preserved by Gk. εἰνάτηρ, Ved. _yātŕ̥-_ and Lat. _māter_, respectively. Differently hypercharacterized is Hindi _mātā_ 'mother', as if from PIE *_me$h_2$teh_2_.

2. Ved. _strí-_ cannot be a root-noun like _dhī́-_ 'thought' because it inflects like _devī́-_ outside the nominative and accusative. Therefore _strí-_ (and PIIr. *_stríH-_, *_strī́-_, see n. 1) is a derived form, whether primary or secondary.

Of all the feminine derivatives in _-ī́-_ (a very large group; the _R̥gveda_ alone attests ca. 180 such stems) only _strī́-_ has a monosyllabic nominative. While polysyllables like _rā́trī-_ 'night'[8] display a cluster _-try-_ in the oblique cases whose overlength breaks the Proto-Indo-European syllabification rules, in _strī́-_ the sequence _-try-_ becomes _-triy-_ before vowel. This extra syllabicity cannot be due to the loss of intervocalic *_-h_2-_ (cf. the gen. _dhiyás_ < *_dʰiH-és_), since the suffixal laryngeal accounts for the long vowels of the endings gen. *_-i̯ās_, dat. *_-i̯āi_ etc. Nor can _-iy-_ be due to Lindeman's Option, since *_str̥ī-_ would have given Ved. "_stirī_" or "_sturī_" and Av. "_starī_". Unlikely is an alternative syllabification *_strii̯eh_2-_ in the oblique cases, if Ved. _mriyáte_ 'dies' is young compared with YAv. _miriiete_ 'dies' < PIr. *_mərii̯a-_ < *_mr̥i̯o-_ (Eichner 1974:33 n. 18; Hoffmann and Forssman 1996:91, 186). The sequence *_-rii̯-_ can only be due to Siever's Law.

This process resulted in all the oblique forms of _strī́-_, whether with synchronically vocalic or consonantal endings, also being disyllabic. It is to match this feature that the expected Proto-Indo-Iranian accusatives *_strī́m_ and *_strī́s_ of the _devī́_-inflection were replaced by *_stríyam_ and *_strii̯as_ (cf. YAv. _striiō_), as in the root-nouns.[9] The _Drang nach Zweisilbigkeit_ conversely also explains the non-vocalization in _rā́tryās_. The following R̥gvedic forms are all disyllabic (the middle column contains all the attested oblique singular _-trī_-cases):

[7]The objections of Sihler 1977:44, Pinault 2012:242 and Harðarson 2014:49 n. 70 fail to appreciate ubiquity of redundancy in human language, which, unlike human "logic," places a low priority on minimalism (see _LIPP_ 1.37).

[8]This serves as the example because no oblique cases of deverbal _-trī_-stems are attested in the _R̥gveda_.

[9]Eichner's discussion (1974:33–4) makes no mention of this fundamental factor.

gen. sg.	_rā́tryās_ 1.94.7c	_striyā́s_
loc. sg.	_rā́tryām_ 10.68.11c	_striyā́m_
	ā́ṣṭryā́m 'in the oven' 10.165.3b	
acc. sg.	_rā́trīm_	_stríyam_ for *_strī́m_[10]
acc. pl.	_rā́trīs_	_stríyas_ for *_strī́s_[11]

3. As to the root and suffix(es) of Ved. _strī́-_ and PIIr. *_strīH-_, *_strī́-_, scholarship quadrifurcates. According to Debrunner and Wackernagel 1930:181–2 a Proto-Indo-Iranian root-noun *_star-_ (shades of Pott!) was feminized by *-ih_2-; for Mayrhofer 1952 an extension *_str-ei̯-_ of Pokorny's root 4. *_ster-_ 'line, strip, stripe' (1959:1028) was feminized by *-h_2-; Eichner (1974:37) starts from a feminine adjective *_stéri_-h_2- 'stiff'. These three ideas are formally unobjectionable, but the postulated semantic developments are dubious. Debrunner and Wackernagel (1930:181–2) ignore the question of meaning entirely. Mayrhofer suggests 'line, strip, stripe' > 'mark' > 'furrow' > 'vulva', then _pars pro toto_. Eichner (1974) is admittedly unable to get from 'stiff' to 'infertile';[12] his suggested further development 'infertile' > 'virgin' > 'woman' is strained at best.[13]

4. The fourth approach sees here not just (with Sturtevant) the influence of the Proto-Indo-Iranian feminine agentive suffix-conglomerate *_-tr-ī-_, but its actual presence.[14] Before *_-tr-ī-_ the full-grade of the root is regular in earliest Vedic and Avestan,[15] but Greek attests zero-grades like δμήτειρα 'subduer' beside πανδαμάτωρ 'all-subduing' < *_demátōr_; this suggests an originally holokinetic paradigm from which all the attested ablaut-variants can be derived. Still, even the heretofore proposed zero-grades *_su-_ 'squeeze; give birth',[16] *sh_1- 'sow',[17] *sk^w- 'follow',[18] or *h_1s- 'exist'[19] must somehow be reduced to just *_s-_. Phonologically the most rigorous solution is doubtless Normier's application of G. Schmidt's law of laryngeal loss in four-consonant clusters, applied to an agent-noun from *seh_1- 'sow', thus *sh_1tr- > *_str-_ like *ph_2tr- > *_ptr-_ (1980:46). Pisani's semantic objection (1954:242) that a woman functions as the receptacle, not the sower or seed-"thrower" (*$séh_1mnes$ $séh_1tor$-), is perhaps too biologically conceived; all over the world peasant agriculture reckons with the labor of all family-members, including women.[20] Still, sowing seeds was hardly a major characteristic of women as a class.

In sum, no known verbal root has found general acceptance as the derivational basis of PIIr. *_strī́-_; its continuants are not mentioned anywhere in Pokorny's _Indogermanisches eytmologisches Wörterbuch_.

5. To Pott's two comparanda for a PIE *_sór-_ 'female; woman' have been successively added the feminines *_tis(o)r-_ 'three' and *k^w_etes(o)r-_ 'four' continued in Proto-Indo-Iranian and Celtic (Brugmann 1876:393–4), then YAv. _hāirišī-_ 'female' (Güntert 1933), then the Anatolian sex-markers, Hitt. _išḫa-ššara-_ 'mistress' and _ḫaššu-šara-_ 'queen' (Lohmann 1936:291–2) and Common Luv. *_nana-sri-_ 'sister' and *_hasu-sri-_ 'queen' (Friedrich 1955 on CLuv.; now known from HLuv. as well). Szemerényi (1967: 216–7) brought CLuv. _ašr-_ 'woman' and Gk. ὄαρ 'wife, lover' into the discussion and in 1977:37–9 he added YAv. _ā̊ŋhairī-_ 'woman'. In the same year Sihler discerned an earlier *_sr-ī-_ 'woman' behind the defeminine Proto-Germanic agent-suffix *_-strī+(ō)n-_ (ModE _spinster_).[21] And Willi (2010:245–51) has adduced the Greek divine name Ἥρᾱ < *_sērā_, seeing it as originally having meant 'relating to women, having to do with womanly concerns' > 'goddess of women', a vr̥ddhi-formation to *_ser-o-_ 'womanly', with a neo-_e_-grade due to secondary ablaut.

The turn of the century has let loose a veritable flood of studies of PIE *_sór-_ 'female' and its continuants, to which I refer for discussion and bibliography: Ledo-Lemos 2002:104–46 (bafflingly unaware of Eichner 1974), Kim 2005:25–31, _NIL_ 2008:681–3, Willi 2010, Pinault 2012, and Harðarson 2014.

6. As to the precise preform and its inflection, Szemerényi's insistence on the ablaut-parallelism of his *_esōr/osr̥_ 'female' with *_u̯edōr/u̯odr̥_ 'water' (1977:37) leads to a dead end, since the oblique stem of such a neuter should by all rights have been *_esn-_ or

[10] The acc. sg. _strī́m_ reappears from the YV on and plural _strī́s_ from the ŚB (Eichner 1974:35), back-formed to the nominative. YAv. _strīm_ may continue an earlier "_striiəm_" or also have been re-created; given the acc. pl. _striiō_, it is unlikely to be an archaism.

[11] In Vedic, _stríyas_ was also used as nom. pl., like _rā́trīs_; its Avestan equivalent is unattested.

[12] This step is in fact not at all necessary, given that homonymy is a normal feature of human language (see _LIPP_ 1.30–1).

[13] See further Normier 1980:44–5. A rejection of Eichner's unification of _strī́-_ 'woman' and _starī́-_ 'infertile cow' (so Kim 2005:126–7, 132; Eichner's analysis is not even mentioned by Pinault 2012 or Harðarson 2014) would in no way invalidate the accent-ablaut framework there espoused.

[14] So Debrunner 1954:416, 674 (differently Debrunner and Wackernagel 1930:181–2) and the authors cited in nn. 16–9; implicitly also Tichy 1995:43 (only the lack of a suitable base-root prevents adopting this analysis).

[15] On the secondary nature of e.g. Ved. _jātrī́-_ '_jánitrī-_' (_AVŚ_ 20.48.2) and YAv. _yūxtar-_ 'yoker' see Tichy 1995:41–5.

[16] Pott 1833:126; Pisani 1954:242–3; Szemerényi 1964:398–9, all presuming syncope of an initial syllable.

[17] Schmidt 1881:29; Normier 1980:45–7.

[18] Thieme 1972:27 = _Kl. Schr._ 2.1213.

[19] A derivation from this root is asserted by Uhlenbeck (1898:345) without the slightest explanation. Due to the then-current derivation of Lat. _erus_ and PIIr. *_ásura-_ 'divine; lord' from *h_1es-, an earlier meaning 'mistress, lady' might have been assumed; but this is disrupted by the comparisons with Hitt. _išḫa-_ 'lord' and _ḫaššu-_ 'king' respectively (see _EWA_ 1.147–8 and on *h_2ens- 'give birth', _LIV_² 269). It is also difficult to reconcile Vedic _satī́-_ 'the true, the good wife' with the distinctly pejorative aspect of Ved. _strī́-_ (Kazzazi 2001:10, 212–8).

[20] In fact, the _Germani_ had all the farm-work carried out by the women, children, and aged, so that they themselves could be free to loaf, drink, and brawl (Tac., _Ger._ 14–5); on the hassle-free nature of pastoralism as a life-style see Schrader-Nehring 1917:286b (who adds sleeping to the manly activities).

[21] On defeminine derivation see _LIPP_ 1.53-4. Sihler (1977) takes Low West Germanic *_-stri-ōn-_ and pre-Gothic *_-strīn-_ (_þramstei_ 'grasshopper' (fem.) from *_tram-strīn-_) as nasal enlargements of PGmc. *_-strī-_ < PIE *_-srī-_. Unaware of Sturtevant's *_srī-_ and of the Luvian comparanda, Sihler sees the *_-ī-_ hypercharacterization as just Proto-Germanic (1977:45).

*osn-, for which there is no evidence. For practical purposes Szemerényi often used a preform *esor-, which is however incompatible with his inanimate *esōr/osr̥.[22] A holokinetic animate r-stem *ésor- is presumed by e.g. Oettinger (1986:124–5) and Melchert in Kim 2005:131 n. 20,[23] while this is rejected in favor of the Neogrammarians' animate root-noun *sṓ(r), *sór-m̥, gen. *sr-és by e.g. Willi (2010), Pinault (2012), and Harðarson (2014). For our purposes either preform will serve; but partisans of *sór- must account for the pre-fricatival vowel of PIE *kʷetesor-, CLuv. *aš̆ri-*, and YAv. *ą̊ŋhairī-*.

The medial vowel of the numeral is explicable either way if it is presumed that the earliest form for 'four' was *kʷet. Then *kʷet-esor- can be either a compound like *su̯esor or reduced from a congruent phrase *kʷétes sóres 'four women' (implicit in Pinault 2012:245). But straightforward internal reconstruction suggests a third path:[24] that an original **kʷetu̯er-sor- has been successively dissimilated to PIE *kʷetesor-. With the regressive r-dissimilation cf. Pre-PIE **trisres > *tisres.

As to the initial vowel of CLuv. *aš̆r(i)-* and YAv. *ą̊ŋhairī-*, Szemerényi (1967:218) at first proposed *n̥s-ōr 'beloved' to *ans- 'well disposed, favorable',[25] but had by 1977:37 shifted to *esor-. The initial vowel, however, cannot have been a lengthened-grade *ē, as this would have given Luv. *ī* (Melchert 1994a:241, 263).

Since PIE *oh$_1$ gives Luv. *ā*, Harðarson (2014:39-41, 47) adduces the Proto-Indo-European preverb formerly known as *ō 'to, toward', which he derives "nach einhelliger Meinung" from an instrumental *(h$_1$)e/oh$_1$ 'thus' (on 48 he calls it a locative—who cares, it's only a particle!). But, as the occasional disyllabicity of this preverb's continuant in the *R̥gveda* shows, its Proto-Indo-European form was in fact *h$_2$o-h$_2$o (*LIPP* 2.326–7)—which is incompatible with Luv. *a-*.

Since PIE *eh$_1$ also gives Luv. *ā* (Melchert 1994a:245, 265), the exclamatory particle *éh$_1$ 'so' comes to mind. This sentence particle, not the preverb, like *ō* < *óh$_1$ a faded modal adverb of anaphoric *ó/e-, commonly occurred before vocatives and has been suspected in Luvian sentence-initial *a-* (*LIPP* 2.208–12). The Latin interjections *ēdī* 'By the gods!', *ēcastor* etc. are univerbations with exclamatory *ē* < *éh$_1$ similar to the delocutive and hypostasized Vedic *ádeva-* 'devout' < *'(one who says) "Hey, gods!"', and to Lat. *ēdī* from PIE *éh$_1$ dei̯u̯ōs! In the same way the vocative of an o-grade *sór-ih$_2$- might have been univerbated with exclamatory *éh$_1$ and then hypostasized, this time

[22] Szemerényi grudgingly concedes a late Proto-Indo-European metanalysis of his *su̯e-su̯-or- 'sister' (1967:221 = 122).

[23] If this contains the same animate agent-suffix *-er- of PIE *h$_2$n-ér-, 'man', *me-h$_2$t-ér- *'companion', Lat. *comes*, Russ. *sputnik'* (to *h$_2$et- 'go') > 'mother' (*LIPP* 2.498 n. 21), perhaps *dai̯u̯-ér- 'daughter's husband' (see the next note), etc., what is the root? Hardly *h$_1$es- 'exist', see n. 19.

[24] A fourth is the older analysis as a root-noun from *tu̯erH- 'grip, contain', preceded by 1. *-(s)kʷe metanalyzed from the preceding *tréi̯es 'three', see *LIPP* 2.690 n. 5.

As a parallel for his suggested parallel second element *u̯or- 'man, male' Meringer (1904:172) could have cited PIE *dai̯-u̯ér- 'husband's brother'.

[25] As in Gk. *προσηνής* 'friendly', Go. *ansts*, NHG *Gunst* 'favor', see Pokorny 1959:47; also in Hitt. *āššu-* 'good' according to Puhvel (Watkins and Melchert prefer *h$_1$e/osu-, 1982:261 and 1994b:302). PIIr. *ásura- 'divine; lord' could continue this root or *h$_2$ens- 'give birth' (n. 19).

with fading of the particle: *éh$_1$ sor-ih$_2$-Ø > *ēsorī 'Hey female!' > pre-Luv. *āsarī-,[26] pre-Av. *āharī- 'female'. A comparable process might underlie PIE *gʷéni- 'woman' if it were a hypostatic back-formation to the vocative *gʷn̥Hai̯-Ø 'Oh woman', this in turn continuing a univerbated sentence *gʷénh$_2$-Ø h$_1$ei̯-Ø 'Woman, come!', with *h$_2$ coloring *e over the word-boundary and as it seems over *h$_1$ as well; cf. Gk. *γυναικ-* < *gʷénh$_2$ h$_1$ei̯-ḱe 'Woman, come here!' (*LIPP* 2.295).

7. Although the agent-noun suffix *-té/or- normally follows verbal roots and stems, in the dialects there are numerous cases where the agent-noun suffix could be interpreted synchronically as an endocentric hypercharacterization of an agentive root noun. For example, Lat. *rēctor* 'ruler' ← *regō* 'I rule' could have appeared to be an extended form of *rēx* 'king'. Similarly, *ductor* 'leader' ← *dūcō* 'I lead' ~ *dux* 'leader', Gk. *ἀνάκτωρ* 'king' (Aesch.+) ← *ἀνάσσω* 'I rule' ~ *ἄναξ* 'king', *φυλακτῆρες* 'guards' ← *φυλάσσω* 'I guard' ~ *φύλαξ* 'guard',[27] YAv. *yūxtar-* 'yoker' ← *yaog-* 'yoke' ~ Ved. *-yuj-* and the like. Even if GAv. *spaštar-* 'watcher' and Lat. *in-spector* 'observer' beside Ved. *spáś-* 'spy', Lat. *au-spex* 'bird-diviner' are parallel innovations like Ved. "*rāṣṭar-*"[28] beside Lat. *rēctor*, such trivial hypercharacterization is possible at any time. Since Ved. *rā́ṣṭrī-* 'queen' (as opposed to *rā́jñī-* 'king's consort') suggests that continuants of *-trih$_2$- might have been used this way as well, the search for the derivational base of PIIr. *s-trī́- should be extended to nominal forms.

8. Sihler's (1977) comparison of Proto-Germanic *-strī+(ō)n- (of which none of the authors mentioned at the end of §5 is aware) together with Common Luv. *-sri- raises hypercharacterized *sr-íh$_2$- (§1) from a hypothesis to a reconstruction; to this Avestan adds the o-grade *sor-ih$_2$-. To this evidence for hyper-feminizations of *sor/sr- by means of *-íh$_2$- I propose to add an Early PIIr. *sriH-triH-.[29] This would have become Late PIIr. *strī́- through haplology, above all in polysyllabic case-forms like the genitive *srītríi̯ās > strii̯ā́s.

Although often relegated to the so-called minor change mechanisms, haplology can be considered a variety of "regular" sound change in that counterexamples are scarce (Hoenigswald 1964:210–1). Nor is haplology seldom in Sanskrit; in fact the very name is a product of Vedic philology (Bloomfield 1893, 1896, 1917). As here,

[26] The syncope to *asri- is cross-linguistically typical of vocatives, but the initial *ă-* is doubly problematic: shortening is limited to unaccented syllables in Luvian, and all accented initial vowels were lengthened (Melchert 1994a:261) This is not addressed by Harðarson (2014:41). Pinault (2014:247) supposes *esor- for the single purpose of explaining *aš̆ri-* and proposes three different mechanisms for this innovation. However, the same double problem bedevils Luvian sentence-initial *a-* which, whether it continues exclamatory *éh$_1$ or not (*LIPP* 2.209 n. 9), can hardly have been unaccented. Note Lat. *ēdepol* 'By the god Pollux!' beside *ēdī*.

[27] See Fraenkel 1910:9, 11; 1912:22–3. Cf. also the notorious nonce-formation *ἐθελοντήρ* 'volunteer'.

[28] Implied by *rā́ṣṭrī* 'queen, female king' (Tichy 1995:288, 341).

[29] Here an intermediate masculine *srī-tor- is unnecessary, although such a form could have usefully indicated the manly female (butch) or the womanly male (drag queen).

haplology normally deletes the first of two identical or similar syllables.[30] The suppression of successive syllables containing *-ri-*[31] differs from the regressive *r*-dissimilation in the feminine ***trisres* > PIE **tisres* and the double dissimilation in ***k*^{w}*etu̯er-sor-* > PIE **k*^{w}*etesor-* (§6). The dissimilatory loss of an initial syllable recurs in Ved. *tṛcá-* 'triple stanza' < **tri-ṛcá-* and perhaps in *yós* gen.-loc. du. 'of/in which two' for *yáyos*.[32] If *yós* shows that Vedic haplology could lead to a monosyllable, then this process need not have been limited to the oblique cases of **strī́-*.

In the end PIIr. **strī́-* would indeed be a derivative of PIE **sór-* over an intermediate **sr-íh*$_2$*-*, as Pott suggested inchoately; however not by means of epenthesis, but of hypercharacterization followed by haplology.

9. Can **sór-* 'female; woman' be related to a verbal root? Not that this is necessary at all; **sór-* could be an adjectival root without verbal derivatives like **h*$_2$*eḱ-* 'sharp', **meǵh*$_2$*-* 'big', **sem-* 'united', **sen-* 'old'. But if one insists on such a connection, there is no shortage of possibilities: the Proto-Indo-European sound-sequence **ser* serves as roots meaning 'flow', 'observe', 'join', as well as adjectival 'reddish', and 'hook' (Pokorny 1959:909–12) and as a particle meaning 'above' (*LIPP* 2.682–4).[33] Of these candidates, the root **ser-* 'join, attach, connect' (*LIV*^{2} 534–5) has repeatedly been proposed as a basis for **sór-*, namely by Meringer (1904),[34] Pokorny (1959:911), and most recently by Willi (2010:253), who interprets **sór-* as "the female who is attached/who attaches herself to a male, i.e. the man's partner". But as we have seen, the primary meaning of **sór-* was not 'partner, wife', but rather the biological 'female', not necessarily human.

Emmerick (1966:22) noted GAv. *hāra-* 'care, attention' as a possible basis of the neuter abstract **hāriš-* and pointed out that in *Vīd.* 15.18–9 the *hāirišī-*'s require *harəθra-* 'care, attention'. He proposed the root *har-* 'observe, watch, protect' as the basis of *hāiriš*.[35] Based on Emmerick's plausible semantics, I suggest seeing PIE **sór-/sr-* 'female' as a root-noun from the root **ser-* 'observe, watch, protect' (*IEW* 910, *LIV*^{2} 534; to be added to *LIPP* 2.683). **sór-* 'female' would denote neither the partner nor the

[30] See for Vedic Wackernagel 1896:278–80 with the Nachträge and Brugmann 1897:857–60. Pinault (2007:275) proposes a similar dissimilation of an **-ih*$_2$-derivative of a contrastive/locatival adverb **sr̥-tér* 'among the females'; but the adverbial ending **-ter* never otherwise occurs after a nominal stem (*LIPP* 1.180–1).

[31] Cf. Lat. *nūtrīx* 'nurse' < **nūtrī-trīx* (differently Leumann 1977:377). But *mātrix* 'female for breeding' is not haplologized but rather a contamination of *māter* with *nūtrīx*.

[32] As opposed to the presumably restored *yáyos* (14×), *yós* occurs only in the problematic 10.105.3a *ápa yór índraḥ pā́paja* "Apart from which two Indra stays stock-still." Differently Oldenberg 1912:325; note *sácāyór* in 4a.

[33] The sound-sequences **ser* and **sor* do not occur among the Proto-Indo-European endings or suffixes (on Hittite *-eššar*, *-ešnaš* see Hoffner and Melchert 2008:58).

[34] Who reasoned that the *-sr-* of **tisres* "so deutlich auf den geschlechtlichen Akt hinweist" because it referred to secondary wives in a state of polygamy.

[35] This was accepted by Szemerényi (1977:35); but Oettinger (1986:121–2) points out that the connection is only indirect: if one has a child with a girl (*kainīn-*), but affords her no care (*nōiṭ harəθrəm baraiti*), then that affects all females, two- and four-legged (*vīspå hāirišiš frāšnaoiti bipaitištanaća ćaθβara.paitištanaća*).

birth-giver, but the protective guardian, the overseer of the family and home, a role by no means limited to females who are already capable of reproduction.

Compound presents like YAv. *nī har-* 'observe, protect', Lyd. *katare-* 'keep guard', Myc. *o-pi . . . o-ro-me-no* 'watching over', *Od.* 14.104 ἐπὶ . . . ὄρονται 'watch, guard', and Lat. *observāre* 'observe carefully' imply that the activity of PIE **ser-* 'observe, watch, protect' was performed from a height.[36] If this verbal root is indeed departiculative from PIE **sér* 'over, above' in origin, then the evidence for this local adverb would no longer be restricted to Greek and Anatolian (*LIPP* 2.683–4).

Abbreviations

EWA = Mayrhofer, Manfred. 1986–2001. *Etymologisches Wörterbuch des Altindischen.* Heidelberg: Winter.

LIPP = Dunkel, George. 2014. *Lexikon der indogermanischen Partikeln und Pronominalstämme.* 2 vols. Heidelberg: Winter.

LIV^2 = Kümmel, Martin and Helmut Rix, eds. 2001. *Lexikon der indogermanischen Verben: Die Wurzeln und ihre Primärstammbildungen.* 2nd ed. Wiesbaden: Reichert.

NIL = Wodtko, Dagmar S., Britta Irslinger, and Carolin Schneider, eds. 2008. *Nomina im indogermanischen Lexikon.* Heidelberg: Winter.

Schrader-Nehring = Schrader, O. 1917. *Reallexikon der indogermanischen Altertumskunde.* Vol. 1. 2nd ed. rev. by A. Nehring. Berlin: de Gruyter.

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[36] Rather than that the protection consisted in '(holding the hand) over' (so Oettinger 2000:187).

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The Blood of Vṛtra May Be All Around Us

JAMES L. FITZGERALD

Though Stephanie Jamison is one of the premier Indo-Iranian linguists and Vedicists of our times, her interests and expertise are not limited to these important and fundamental fields. She has ranged forward in time and in genre, to dharmaśāstra, the *Mahābhārata*, and kāvya, calling attention to words, phrases, and themes that echo from the Vedas to the classical poets, often by way of the *Mahābhārata*, and all to good effect. Of her many outstanding contributions to our knowledge, two of the most intriguing are her analysis of the survival of Indra-Vṛtra battle themes in Kālidāsa's narration of Śiva's blasting to ashes the body of the God of Love in Sarga Three of his epic poem *Kumārasaṃbhava* (Jamison 1996) and her investigation into some of the textual dynamics of the Sanskritic tradition by way of one of the food laws of dharmaśāstra—the inclusion of the rhinoceros in the list of the "five five-nailed" animals that may be eaten (Jamison 1998). My modest contribution to this bouquet joins both these topics of Stephanie's earlier work, as it focuses upon a food proscribed for brahmins because it arose from the blood shed by Vṛtra when Indra killed him, according to one late *Mahābhārata* account of that event. But this proscribed food is called *khukhuṇḍa*, a word that must be described as a whisper that almost faded away rather than an echo from Indo-Iranian times. On the other hand, even if the word was not clearly heard in the Sanskritic tradition, what it likely refers to is spectacular and memorable!

1 The Asura and Vṛtra segments of Book 12 of the *Mahābhārata*

It would be a very large understatement to say that the tradition that became the *Mahābhārata* was deeply fascinated with the narrative of Indra's defeat of Vṛtra: the *Mahābhārata* includes a number of narrative recasts of that theme, and the theme provides basic structural and rhetorical elements that inform the whole of the central *Mahābhārata* narrative.[1] One of many interesting uses and developments of the theme

[1]For basic treatments see Hopkins 1915:129–32, Hiltebeitel 1976:141–296, and Vassilkov 2002. Vassilkov comes to the theme by way of a discussion of the metaphors of the *Karṇa Parvan* of the *Mahābhārata* which focuses upon the mortal encounter of Arjuna, son of Indra, and Karṇa, son of the Sun, who is identified with Vṛtra in that encounter.

occurs in two sets of texts found in Book Twelve of the *Mahābhārata*, the *Śānti Parvan*. These six texts serially depict Vṛtra and three of his Indra-defeated Asura counterparts—Prahrāda, Bali, and Namuci—as humble savants who espouse the ideas and attitudes of the *mokṣadharma*, each having learned from his defeat that all one enjoys and suffers in life is only temporary. Indra plays a role in all the episodes that present the wisdom of these Asuras—sometimes being depicted as a bully, pointedly lacking the understanding and virtues of the Asuras he has defeated—and the Goddess Śrī plays a role in several of them too, personifying the Riches of Sovereignty who ostentatiously moves from king to king depending upon his devotion to Righteousness (*dharma*).[2]

The one text among these six that actually focuses upon Vṛtra, the "Vṛtragītā" (12.270–1), is followed immediately by a late recasting of the killing of Vṛtra, the "Vṛtravadha" (12.272–3).[3] This pair of texts presents a number of highly developed ideas that become commonplace in the later strata of the epic and in the *purāṇas*. The first chapter of the "Vṛtragītā," Vṛtra's dying conversation with his priest Kāvya Uśanas, runs closely parallel to the savant Asura texts mentioned just above and is certainly the "song," *gītā*, referred to in this text's label. But the text then moves into related philosophical avenues and quickly turns into a long sermon by Sanatkumāra (a son born directly from the mind of the Creator God Brahmā and a voice of Brahmā's wisdom) that gives a monistic Vaiṣṇava account of the universe and includes a long description of the (very real) ups and downs of souls on their way to everlasting proximity to Viṣṇu by way of yoga practice.[4] Upon hearing this sermon Vṛtra professes his conversion to Viṣṇu, takes up yoga to effect the necessary self-transformation, and dies and joins Viṣṇu in his heaven. Like the five earlier savant Asura texts, Vṛtra's thoughts are expressed here in explicit recollection of his earlier defeat by Indra.

The ensuing text that is labeled "Vṛtravadha" ("The Slaying of Vṛtra") is explicitly

[2]See MBh 12.215, "The Conversation between Indra and the Asura Prahrāda"; 12.216–8, "The Conversation among Indra, the Asura Bali, and the Goddess Śrī"; 12.219, "The Conversation between Indra and the Asura King Namuci"; 12.220, "The Second Conversation between Indra and the Asura King Bali"; 12.221, "The Conversation between Indra and the Goddess Śrī"; and 12.270–1, "The Song of the Asura Vṛtra." The last is the only one of these presentations of Asura wisdom that uses Vṛtra and it precedes a major epic account of how Indra slew him: 12.272–3, "The Slaying of the Asura Vṛtra." (MBh 3.99, 5.9–10, and 14.11 are the three other major accounts of this event in the epic; 12.329.17–41 mentions briefly Indra's killing of Vṛtra [329.27D], while retelling in prose the complex surrounding narrative related in the *ślokas* of 5.9–18. NB: When citing prose passages of the *Mahābhārata* I follow the convention of John D. Smith's electronic text in using capital Roman letters—A, B, C, etc.—as labels for the sub-unit components of the text's unit-numbers: e.g. the reference above to 12.329.27D refers to what is given in the printed Pune text as 12.329.27.4.)

[3]The forty-third and forty-fourth texts of the *Mokṣadharma* collection—two of the younger texts anthologized in it. Of the 210 stanzas (with 497 lines) making up these two texts, thirty-two stanzas in the first of them are, with just a few exceptions, classical *upajāti triṣṭubhs*. The forty-fifth text, 12.274, "The Origin of Fever," is a kind of coda to the "Vṛtravadha" (see below, with n. 6). It explains in detail the origins of the fever Śiva sent into Vṛtra and recaps Vṛtra's death and union with Viṣṇu (12.274.56–9).

[4]This account includes an interesting theory of souls' having six colors: 12.271.33–47, the first half of the classical *triṣṭubh* passage. The theory is anticipated at 270.9–10.

linked, in the framing narrative of the *Mokṣadharma* collection,[5] to the preceding "Vṛtragītā." A puzzled Yudhiṣṭhira wants to know, "How was such a pious devotee of Viṣṇu killed by Indra?" As the earlier focus upon Viṣṇu and now this question signify, this account of Indra's slaying of Vṛtra takes for granted the highly developed theological notion of a natural order of all things that has developed from a single material cause (a primordial matrix, a *prakṛti*, that develops regularly and mechanistically [*svabhāvena*]) and is ultimately energized by and subject to the control of a Supreme Lord, *īśvara*, the one everlasting God—conceived of by some to be Viṣṇu (a.k.a. Nārāyaṇa, Hari, Kṛṣṇa) and by others to be Śiva (a.k.a. Rudra, Hara, Bhava, etc.). While the zealous partisans of these two Gods at times advocated rival claims to unique supremacy of one or the other of them, the two texts here gently negotiate this rivalry by making use of the old, well-known theme of Indra's slaying of Vṛtra. With Vṛtra's schooling in the theology of Viṣṇu and becoming a devotee (*bhakta*) of Viṣṇu depicted in the first text, the "Vṛtragītā," the second text of the pair swings to the other theological pole: it turns upon Indra's need for the power of Śiva in order to defeat Vṛtra. The second text demonstrates the insufficiency of the aid customarily furnished to Indra (according to earlier accounts) by other Vedic Gods, by Bṛhaspati, Vasiṣṭha, and the brahmin seers collectively, and even by Viṣṇu. In the account here, Indra, even though assisted in all the ways earlier reported, was able to kill Vṛtra only after Bṛhaspati had sought Śiva's help and Śiva then sent some of his *tejas* into Vṛtra, which affected Vṛtra as an extreme, debilitating fever.[6]

Further themes represented in this account are Vṛtra's Brahminic piety (he is called *dharmabhṛtāṃ varaḥ* "the most excellent of the supporters of Right Action," at 12.272.18 and 274.56), which develops into his devotion to Viṣṇu;[7] his mastery of him-

[5]The reluctant new king Yudhiṣṭhira questioning the dying patriarch of the receding era, Bhīṣma, on various aspects of *dharma*.

[6]The text following the "Vṛtravadha" is the "Origin of Fever" (12.274), which is likewise devoted to the magnificence of Śiva. Fever was born as a grotesque manikin from a bead of perspiration that fell from Śiva's forehead as he angrily pursued the fleeing form of the sacrifice of Dakṣa. Śiva was engaged in destroying Dakṣa's sacrifice because the general practice of the Vedic ritual did not direct any of the sacrificial offerings to him. The manikin Fever—an enduring form of Śiva's anger—harassed the Gods until they agreed to allow Śiva a share of the ritual offerings. The highly troublesome manikin was then dissolved into many different manifestations of heat or disordered conditions in beings in the world, such as the musth of bull elephants, hoof-and-mouth disease in cattle, the screeching of parrots, etc., and fever in humans.

[7]As earlier his older brother, and in some ways earlier embodiment, Triśiras Viśvarūpa ("Three-Headed" "Having, or Taking, All Forms, or Consisting of All Visible, or Physical, Things, or Bodies, or Whose Own Self or Body Is Everything," etc.) was depicted as a pious brahmin ascetic at MBh 5.9.3ff. and 12.329.21–7. While essentially correct, Macdonell (1897:160) put the matter too baldly when he wrote, "In the Mahābhārata (5, 22f. [sic? 5.9ff. must be meant; Pune and Bombay chapter numbers are identical here]) the three-headed son of Tvaṣṭṛ and Vṛtra are identical." The accounts of Tvaṣṭṛ's creating Vṛtra to avenge the death of Triśiras Viśvarūpa (in MBh 5.9.40–44 and 12.329.27D) do seem to occasion a thoroughgoing transfer of Triśiras's traits to this new brother, Vṛtra. This transfer seems to have been especially important with regard to Vṛtra's being understood as a brahmin. Triśiras was identified at TS 2.5.1.1 as a *purohita* of the Gods, i.e. a brahmin. Vṛtra was explicitly regarded as a brahmin too, given that *brahmahatyā* emerged directly from Vṛtra's body at 12.273.10, and at 329.28A his *brahmavadha* is referred to as *dvaividhībhūta*. The

self through the cultivation of yoga-control[8] and, reciprocally, his powers to exercise purposeful control (yoga as well) over other beings and the elements like a great lord-master, an *īśvara* or *mahāyogin* (Vṛtra is called *mahāyogin* at 274.57); and his "cosmic magnificence" (he is gigantic [272.7–9], encompasses everything, is omnipresent, and possesses many powers of magic [*māyā*]).[9]

The second of the two chapters making up the "Vṛtravadha" devotes much space to the story of an anthropomorphic form of "brahmicide" (*brahmahatyā*) emerging from Vṛtra's body as a gruesome, blood-soaked witch and pursuing Indra, who hid himself in a lotus stalk. She eventually caught him trying to leave the lotus and latched onto him so tightly that he could not get her off. Indra went to Brahmā's celestial court with her hanging onto him, but Brahmā persuaded her to relent and accept temporary residence in four different loci: in Fire, in vegetation, in the Apsarases, and in the waters. Each of these entities agreed to accept brahmicide for a limited time, and Brahmā stipulated a distinct act of impiety toward each that would occasion the transfer of the sin of brahmicide to the offender.

2 Vṛtra's blood is still with us

This account of Indra's killing of Vṛtra concludes by noting that after he was relieved of the sin of brahmicide, Indra purified himself by performing a Horse Sacrifice. But between that concluding fact and Bhīṣma's formal commendation of Indra's heroic example to King Yudhiṣṭhira, there are two stanzas permanently connecting this account of brahmicide to the life and status of brahmins, MBh 12.273.58–9. The first one, however, presents a puzzle:

> *vṛtrasya rudhirāc caiva khukhuṇḍāḥ pārtha jajñire /*
> *dvijātibhir abhakṣyās te dīkṣitaiś ca tapodhanaiḥ* // 58
> *sarvāvastham tvam apy eṣāṃ dvijātīnāṃ priyaṃ kuru /*
> *ime hi bhūtale devāḥ prathitāḥ kurunandana* // 59
> *Khukhuṇḍas* were born of Vṛtra's blood; these are not to be eaten by brahmins, nor by ascetics who have been consecrated. [58] In every circumstance you must do what is pleasing to these brahmins, for they are Gods spread out across the face of the earth, O scion of the Kurus. [59]

prior killing of Triśiras is part of the narratives of 5.9ff. and 12.329 but is not mentioned at all in the two texts under discussion here.

[8]Controlling oneself and focusing one's mind on critically important realities such as the Self, God, or the universal elements by "harnessing" the difficult-to-control senses and mind.

[9]At 12.272.34 Śiva tells Indra that Vṛtra "encompasses all within himself, goes everywhere, is famed as the possessor of great magic power" (*viśvātmā sarvagaś ca bahumayaś ca viśrutaḥ*). Vṛtra's "largeness" here was inherited. It echoes Tvaṣṭṛ's being, in the *Ṛgveda*, the universal artisan, himself *viśvarūpa*, a deity 'of all forms', or 'all things', and is something emphasized with Tvaṣṭṛ's elder son Triśiras Viśvarūpa. Taking this trait from Triśiras as well as his piety, Vṛtra is depicted in the first three *Mahābhārata* episodes as growing larger and larger, and even swallowing Indra for a time: see 3.99.1; 5.9.46–7, 50; and 10.1ff. He too is called *viśvarūpa* at 5.10.11.

Something edible known as a ***khukhuṇḍa*** resulted from the blood shed by the brahmin Vṛtra as he died and is forbidden to brahmins and Brahminically commissioned ascetics as food. What might these ***khukhuṇḍa***s be? The word ***khukhuṇḍa*** is not found in any modern Western dictionaries of Sanskrit, a consequence, in part, of being unknown in the extant native lexicographical tradition: in fact, the word is not found in any known dictionaries old or new.[10] It has completely escaped modern scholarly attention up to now, for it has been recovered from obscurity only by the critical edition of Pune. The vulgate text of our ***Mahābhārata*** passage reads, in place of ***khukhuṇḍāḥ***, rather ***śikhaṇḍāḥ***, a word known to the native lexicographical tradition, and so to us, as signifying 'crest, hair-tuft, plume; peacock's tail'.[11] We shall see that ***khukhuṇḍa*** was, fortunately, known to the ***Mahābhārata*** commentators Arjunamiśra of Bengal (late 13th cent. [Ghosh 1934–5:708]) and Vidyāsāgara of Goa (latter half of the 14th cent. [Belvalkar 1961–6, ***Introduction***:clix])[12] and we shall see that the word ***śikhaṇḍa*** may have been a synonym for or a translation of it.

Before moving to the recovered ***khukhuṇḍāḥ***, let us look at the vulgate's substitution, ***śikhaṇḍāḥ***. Unusually for the texts of the ***Mahābhārata***'s ***Śānti Parvan***, Nīlakaṇṭha has almost nothing to say about anything in chapter 12.273.[13] Earlier translators who were based on the vulgate—Mohan Ganguli (1884–96)[14] and the team of Paul Deussen and Otto Strauss (1906:508)[15]—did their best with ***śikhaṇḍāḥ***. Ganguli took the word as a metonym for crested birds such as peacocks, some quail, and other fowl, and this was accepted by E. Washburn Hopkins:

> From the blood of Vritra, O son of Pritha, were born high-crested cocks.
> For this reason, those fowls are unclean as food for the regenerate classes,
> and those ascetics that have undergone the rite of initiation.[16]

Unwilling to follow Ganguli's interpretation, Deussen and Strauss merely transcribe the word, suggesting that it may be a plant:

> Aus dem Blute des Vṛitra, O Pṛithâsohn, entstanden die Çikhaṇḍa's, von geweihten und askesereichen Brahmanen dürfen sie nicht gegessen werden.

Deussen and Strauss offer the following note for "Çikhaṇḍa's":

> Nach P. W. [= Böhtlingk and Roth 1855–75: "Petersburger Wörterbuch"] "wohl ***eine bestimmte Pflanze***"; Nîlakaṇṭha, Çabdakalpadruma und Vâcaspatyam geben keine Hilfe; "***high-crested cocks***" P. C. Ray [= Ganguli 1884–96]; "Hähne" Jacobi.[17]

If it were necessary to choose now between interpretations of plant or animal, on the basis of this reading, I would decide in favor of plants: it seems intrinsically more likely that some kind of plant would be thought to arise from drops of blood than some kind of bird, though it cannot be ruled out that the author might have been thinking of the latter. The spray of blood is a kind of rain (particularly if from a gigantic celestial demon), and not only is the association of rain and plants obvious to casual observation but, as is well known, it was a major theme of philosophical and religious discussion in Brahminic texts from early times.[18] Though the account here of the killing of Vṛtra is relatively late—it is basically a Purāṇic text with highly developed themes of theology and yoga—and would thus seem to rule out any need for proscribing flesh,[19] we cannot say on this basis that the vulgate ***śikhaṇḍāḥ*** here cannot refer to peacocks and similar birds. For—and this is a major collateral point of Stephanie's discussion of the inclusion of the rhinoceros in the lists of "five-nailed" animals acceptable as food—this proscription might have been formulated much earlier than the text in which it appears.

But we need not decide the question whether ***śikhaṇḍa*** should be understood as a bird or a plant in isolation. There is a better reading, ***khukhuṇḍa***, and the overlap in meaning of the two readings is helpful. Although the vulgate's ***śikhaṇḍāḥ*** is a variant attested by a good number of the thirty-five manuscript witnesses available for 12.273[20] (nine mss., with two others giving the closely related ***śikhaṇḍīḥ***), it is, in spite

[10] The commentator Vidyāsāgara offered an apparent quotation from a traditional lexicon he identifies as "Madhumatī," but I find no mention of it in Vogel 1979. Vidyāsāgara's entire comment reads (as quoted by Belvalkar in the apparatus to MBh 12.273.58): ***khukhundāḥ mayūrāḥ—mayūro mecakaḥ kundaḥ khukhuṇḍaḥ palikas tathā—iti madhumatī***.

[11] The word ***śikhaṇḍa*** seems clearly to be related to ***śikhā*** 'crest, top-knot of hair, etc.'. And of course a common Sanskrit word for peacock is ***śikhaṇḍin***, literally 'possessed of a ***śikhaṇḍa***'.

[12] The citations of Arjunamiśra and Vidyāsāgara are taken from the quotations of manuscripts of their commentaries provided in the critical apparatus, ***ad loc.***, by the editor of the ***Śanti Parvan***, S. K. Belvalkar.

[13] Chapter 12.282 in the Citraśala Press edition of the text (Kinjawadekar 1929–33). Nīlakaṇṭha makes only one passing comment on one verse and then a general comment on the entire chapter: ***brahmavidāṃ vadha indrasyāpy atyantaduḥkhado nāśahetuś ca bhavatīty adhyāyatatpāryam*** "The point of this chapter is that the killing of those who know the ***brahman***—even by Indra—brings misery beyond bounds (upon the killer), is a cause of (his) demise."

[14] The chapter number in this edition is also 12.282 (cited from Ganguli 1884–96:3.310).

[15] The chapter number in this edition is 12.283.

[16] MBh (vulgate) 12.282.60 (Ganguli 1884–96:3.310); see Hopkins 1915:131.

[17] It should be noted that the suggestion "some particular plant" of Böhtlingk and Roth (1855–75) is based solely on this passage from the vulgate ***Mahābhārata***.

[18] It is also worth observing that by calling attention to showers of Vṛtra's blood, the text transforms the commonplace theme of the showers of nourishing rain brought by Indra, particularly by his slaying of Vṛtra.

[19] Especially in light of 273.31–2, which takes the sacrificial proscription of animal victims for granted. This passage condemns in an oblique fashion the making of Vedic sacrifices with such offerings. The Creator Brahmā parceled quarters of the anthropomorphized sin of brahmicide first to Fire, the conveyor of the ritual offerings of humans to the Gods. In the case of each of the four assignments of brahmicide (to Fire, plants, Apsarases, and the waters), Brahmā stipulated that the sin would eventually transfer from each of these four repositories to people who acted toward the recipient entity in some offensive way. ***Mahābhārata*** 273.31–2 specifies the offense in the case of Fire in this way: "***Brahmā said***: Should sometime when you are blazing [ready to receive sacrificial offerings] a man approach you and, as he is covered over with Darkness, not offer sacrifice with seeds, or plants, or liquids [i.e. insist upon making an offering with animal flesh], [31] then Brahmin-Killing here will go directly to him and live in him, O bearer of sacrificial offerings to the Gods. [32]"

[20] Of the thirty-six witnesses used throughout the ***Mokṣadharmaparvan***, G_6 is unavailable for 12.273.

of the difficulty with its interpretation, the easiest reading of all available alternatives, the *lectio facilior*. But instead of ***śikhaṇḍāḥ*** Belvalkar elected ***khukhuṇḍāḥ*** for the constituted text, and that choice seems clearly to be the right reading. It is attested by even more of the thirty-five witnesses (13) and receives support from many others.[21] Furthermore, ***khukhuṇḍāḥ*** is clearly a more difficult reading than the recognizable word ***śikhaṇḍāḥ***. However, ***khukhuṇḍāḥ*** does in fact turn out to be a word known to some ancient scholars and one that is meaningfully construable in context (see below). Also, it is not as difficult a reading as the other variants available: the weakly attested ***kharkhaṇḍāḥ*** (Ś$_1$ K$_2$), ***hriḍagaṇḍāḥ*** ([sic] K$_1$), ***khukṣuṇḍāḥ*** (B$_7$), and ***bukuṇḍāḥ*** (M$_1$) and the respectably represented ***budbudāḥ*** (T$_{1,2}$ G$_{1,3}$ M$_7$), which is also a recognizable word (***budbuda*** means 'bubble') but with no record of being used to refer to anything edible.

As mentioned, Arjunamiśra and Vidyāsāgara, at opposite ends of the subcontinent, did both know the word, and they provide us with the clues we need to arrive at a reasonably likely identification of these ***khukhuṇḍāḥ***, for which ***śikhaṇḍāḥ*** is plausibly a synonym or a translation.[22] Arjunamiśra glosses ***khukhuṇḍāḥ*** as ***bahisthachatrākāḥ*** (sic), which would seem to refer to a plant or animal with a small,[23] external[24] crest.[25] This gloss of ***khukhuṇḍa*** could well describe a ***śikhaṇḍa***—a small crest sticking out of the top of some plant or animal—and suggests that the two words are at least roughly synonymous. Vidyāsāgara's gloss, ***mayūrāḥ***, keeps us on the same ground, for ***mayūra*** is a common word for peacock. But more interestingly, according to Böhtlingk and Roth (1855–75), who base their understanding upon traditional native lexica, ***mayūra*** also signifies the plant *Celosia cristata*, "crested" celosia, "burning cockscomb," and perhaps some of the similar varieties of celosia.[26]

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[21] Support comes from three other mss. that read "***kh***" as the initial consonant and seven that have "***u***" as the first vowel (but only one of these ten [B$_7$] reads "***khu***" for the first syllable), while eight other mss. read "***u***" in the second syllable.

[22] It is interesting that although all five of the Bengali mss. used for the edition of the *Mokṣadharmaparvan* read a form of ***khukhuṇḍāḥ*** (***khukṣuṇḍāḥ*** in B$_7$), and although Arjunamiśra, hailing from Bengal, knew and read ***khukhuṇḍāḥ***, the Calcutta edition of the *Mahābhārata* at unit number 10202 (Anonymous Pandits 1834–9:3.725) reads ***śikhandāḥ*** with the vulgate tradition of Nīlakaṇṭha.

[23] Note the diminutive-making suffix ***-ka***.

[24] ***bahistha*** is either an error for or a variant of ***bahiḥstha*** 'standing outside'.

[25] ***chatra*** 'parasol'.

[26] There is a certain amount of variation in nomenclature in connection with the various forms of celosia. Some sources refer to the genus and species *Celosia argentea*, with *Celosia cristata*, *Celosia argentea* var., and other forms of celosia as subdivisions. There is considerable variation in the florets of different varieties of celosia, some the result of deliberate breeding by florists, with certain experts distinguishing celosia into *Celosia cristata*, *Celosia spicata*, and *Celosia plumosa* subspecies. For example, the following is quoted from the horticultural website Floridata.com: "Cultivars in the Cristata Group have compact rounded, crested or fan-shaped flowerheads with bizarre convoluted ridges. The flowerheads are 3-12 in (7.6-30.5 cm) across and look a little like velvety brains, cauliflower heads or roosters' combs. 'Big Chief Mix' is tall, to 3 ft (0.9 m), with cauliflower-shaped flowerheads to 6 in (15.2 cm) in diameter. 'Jewel Box Mix' is very small, to 8 in (20.3 cm), with bronzy leaves and flowerheads in hot, bright colors including yellow, pink, salmon, gold and red; the flowerheads are fan-shaped, like a rooster's comb. The Childsii Group (a.k.a. C. 'Childsii'

The plant *Celosia cristata* fits the sentence of 273.58 very well: it is an edible plant found in India that may often look like blood splattered on the ground. A genus of the cosmopolitan family of Amaranthaceae, celosia occurs all across Africa and Asia and is widely found in the New World today as well, where it has various ornamental, edible, and medicinal uses. It has brilliantly colored flowers that are red, pink, orange, and yellow and that may appear in spikes, plumes, or crests, depending upon the variety, with the flowerhead positioned, sometimes, on top of a stalk.[27] Unfortunately, it is not possible to include in this contribution photographs that can demonstrate the brilliantly crimson floral crests that were likely the basis of identifying red-flowering celosia as originating from drops of Vṛtra's blood. There are, however, many spectacular photographs of *Celosia cristata* and its close cousins easily available on the internet, and I list here some their urls as they were in mid-2014.

The photograph at http://en.academic.ru/dic.nsf/enwiki/816139 shows a large, brilliant flowerhead atop a stalk, with a smaller one nearby depicting the stalk more clearly and suggesting the origin of Arjunamiśra's ***bahisthachatrākāḥ*** gloss. The larger flowerhead in this photograph shows the "bizarre convoluted ridges . . . [that] look a little like velvety brains, cauliflower heads or roosters' combs" mentioned in the Floridata.com description given above in n. 26. A similarly brilliant image of two flowerheads that resemble cockscombs is available at http://courses.nres.illinois.edu/hort343/Cockscomb,%20Crested%20Celosia.htm; another dramatic crest can be seen at http://en.wikipedia.org/wiki/File:Red_Cockscomb_flowers.JPG; and for another brilliant red flowerhead on a long stalk see www.missouriplants.com.

As already noted, the flowerheads occur in other colors besides red, such as this brilliant yellow sibling of the red image cited first above: http://en.wikipedia.org/wiki/File:Celosia_cristataII.JPG. The yellow celosia did not inspire the identification with Vṛtra's blood, but in a moment I will point to a mélange of red and yellow plumes that could do so.

It is not merely crests atop stalks and the brilliance of the individual red crests upon which this identification rests. The website http://www.public.asu.edu/~camartin/plants/Plant%20html%20files/Celosia1.jpg shows the species *C. spicata*, in which many smaller spikes form the crests. The image suggests patches of such closely

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and Chinese woolflower) includes cultivars with rounded flowerheads that look like twisted and tangled balls of yarn. The Spicata Group (often classified as a distinct species, *C. spicata*) includes cultivars with slender, cylindrical pink or rose flowerheads which have a metallic sheen because the individual flowers are silvery-white at their bases. 'Flaming Series' cultivars are typical of this group . . . (Some of the flower colors may be just too dramatic to go well with other flowers.)" The U.S. Government's "Integrated Taxonomic Information System" (ITIS) classifies the celosia today as belonging to the family Amaranthaceae, genus *Celosia*, and species ***cristata***, with other species ***argentea***, ***nitida*** ("West Indian cock's comb"), ***palmeri***, etc.

[27] "Of all the world's vegetable crops celosia is far and away the prettiest. . . . [T]he name itself refers to the plant's brilliant appearance and striking flame-like flowers. In a hundred nations the showy heads of this species seem to outshine the sun in gardens, window boxes, streetside displays, and floral exhibits. Not only are the flowers richly hued, their deep-green foliage may also be shot through with streaks of red or purple pigment. As a result, celosia can be eye catching even before it blossoms" (NRC 2006:93).

bunched flowers resembling splatters of blood. This notion is amplified by the fact that the leaves of this species have red splotches upon them, a common feature of some varieties of celosia. (That these plants and their flowers may suggest patches of blood splatter is clearly shown at http://johnstarnesurbanfarm.blogspot.com/2012_06_01_archive.html.)

Drops and pools of blood are suggested in the following: http://en.wikipedia.org/wiki/File:CelosiaCristata.jpg (enlarged at http://upload.wikimedia.org/wikipedia/commons/f/f0/CelosiaCristata.jpg) and also http://www.bhg.com/gardening/plant-dictionary/annual/celosia/ and http://en.wikipedia.org/wiki/Celosia_argentea. Finally, at http://www.kerteszoldal.eoldal.hu/fenykepek/nincs-megadva-rovat/egynyari-viragok/cellosia-argentea-var.-cristata---tarajos-cellozia.-.html there can be seen a brilliant array of crimson and yellow crests intermingled.

The brilliant red or reddish color of many celosia plants connects them to blood in a way that cannot be done for peacocks or any other crested birds or animals, and that fact would seem to tip the balance decisively in favor of seeing the reference in MBh 12.273.58 to these plants rather than to any fowl.[28]

Celosia leaves are consumed in South Asia and elsewhere,[29] and in South Asia the powdered flowers are used as a spice and coloring agent in some recipes for *garam masala*, the Kashmiri lamb dish Rogan Josh, etc.[30] The powder can be purchased over the Internet, for which this ad, depicting crests of celosia on the package, appears:



"Mawal (Cockscomb) Powder"
"Only our company in the whole world has the honor to make this powder. Also called as cockscomb, Mawal powder is beneficial for diabetes."
(http://www.indiamart.com/adfar-foodspices/products.html)

[28] I will mention a currently unverifiable lead that connects celosia to blood in traditional China. My researches into celosia led me to this brief notice on healthblogs.org (Norton 2012): Title: "Chinese herbs In Western view – Ji Guan Hua (Flos Celosiae argenteae) health benefits and side effects" over a photograph of *Celosia cristata* [see n. 26 above on the lack of terminological univocality] and followed by the assertion, "*Ji Guan Hua* is also known as Celosia flower. The sweet and cool herb has been used in TCM [i.e. Traditional Chinese Medicine] to stop hemorrhoids bleeding, Menopausal bleeding, treat yeast infections with red or white discharge, etc., as it cools Blood, stops bleeding, clears wind heat, liver fire, etc., by enhancing the function of liver channels." If there is actually such an association of celosia and blood-associated afflictions in traditional China, it is more likely a matter of independent invention than any folklore shared with India.

[29] See Sinha and Lakra 2007 and also Freedman 1998; informative about the general food value of celosia plants, but reporting only on its uses in Africa, is the section on "Celosia" in NRC 2014.

[30] In the northwest of South Asia cockscomb is known as *maula*; the word for the plant in Hindi is *lal murghka* (Freedman 1998, which includes many of the other names of celosia in various South Asian languages).

3 Conclusion

It seems likely the word *khukhuṇḍa* (MBh 12.273.58) is a reference to *Celosia cristata* and closely related plants, a reference that is easy to understand poetically and mythologically as the product of a demon's blood raining down from the sky. The vulgate's *śikhaṇḍa* is probably a translation of an unfamiliar word into more familiar Sanskrit with the same meaning, and Böhtlingk and Roth's gloss of *śikhaṇḍa*—"wohl eine bestimmte Pflanze"—can now apparently be confirmed.

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Homerisch *πρόκλυτος*, avestisch *frasrūta-*

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1. Im 20. Buch (Υ) der Ilias kommt es zu einem Zweikampf zwischen dem Troer Aineias und dem Griechen Achilleus. Beide sind von nicht gewöhnlicher Abkunft, denn jeder von ihnen hat eine Göttin zur Mutter und einen sterblichen Mann zum Vater. Die Eltern des Aineias sind Aphrodite und Anchises, die des Achilleus sind Thetis und Peleus. Vor dem Zweikampf entspinnt sich ein Gespräch zwischen den beiden Helden. In dessen Verlauf sagt Aineias zu Achilleus, Il. 20.203–5:

> *ἴδμεν δ' ἀλλήλων γενεήν, ἴδμεν δὲ τοκῆας,*
> *πρόκλυτ' ἀκούοντες ἔπεα θνητῶν ἀνθρώπων,*
> *ὄψει δ' οὔτ' ἄρ πω σὺ ἐμοὺς ἴδες οὔτ' ἄρ' ἐγὼ σούς.*
>
> „Wir wissen beide um die Abstammung des anderen, wissen auch um seine Eltern, denn wir haben die weithin verbreiteten Geschichten sterblicher Menschen[1] gehört; von Angesicht aber hast weder du die meinen schon einmal gesehen noch ich die deinen".

2.1. *πρόκλυτ'(α)*, Akk. Plur. Ntr. eines Adjektivs *πρόκλυτος*, kongruiert mit *ἔπεα* ‚Erzählungen, Geschichten'. Das nur hier bezeugte Adj. scheint noch nicht näher untersucht worden zu sein. Im Folgenden wird versucht, die Auffassung zu begründen, daß Homer mit diesem *πρόκλυτα ἔπεα* „weithin verbreitete[2] Geschichten" gemeint hat.

2.2. Daß der Stamm des Adj. aus den drei wohlbekannten Elementen *προ-κλυ-το-* besteht, liegt auf der Hand. Die Bedeutung dieses Hapax legomenon ist dennoch nicht ohne weiteres zu erkennen. *προ-κλυ-*[3] ist auch in *προκλύειν* enthalten, das seinerseits nur einmal erscheint, und zwar in der Aischylos-Überlieferung (*Ag.* 251). Aber

[1] *θνητῶν ἀνθρώπων* kann auch zu *ἀκούοντες* gezogen werden: „wir haben von sterblichen Menschen … Geschichten gehört". Die „Geschichten sterblicher Menschen" handeln hier von Unsterblichen; darin mag ein beabsichtigter Gegensatz liegen; *θνητῶν ἀνθρώπων* gehört also eher zu *ἔπεα*.

[2] So oder ähnlich ist *πρόκλυτ'* mitunter auch wiedergegeben worden; z.B. kommt Leaf (1902:363) ohne sprachliche Analyse zu einem ‚widespread'.

[3] Nur wurzelverwandt damit ist der Personenname Προ-κλέης; er enthält das Subst. *κλέος* und erinnert an RV *prá-śravas-* ‚hervorragenden Ruhm habend'; ebenso gebildet sind *prá-cetas-*, *prá-tvakṣas-*, *prá-manas-* (AV); vgl. Wackernagel 1905:284.

die Bezeugung ist ganz unsicher; im Text der modernen Ausgaben erscheint die Form nicht mehr.[4]

Die modernen Übersetzer und Erklärer Homers sowie die Lexikographen haben πρόκλυτα verschieden wiedergegeben. Einen Überblick über die verschiedenen Auffassungen liefert De Putter (2004:1557). Weiterführend ist De Putters eigener Hinweis, daß mit ἔπεα 20.204 offensichtlich Erzählungen über die hier erwähnten Eltern von Aineias und Achilleus gemeint sind, also über eine nicht sehr ferne Vergangenheit. Folglich spiele das προ- wohl nicht auf ‚vor-'malige, d.h. alte Zeiten an. Man kann dann noch weiter gehen und annehmen, daß durch προ- nichts Zeitliches ausgedrückt ist (anders De Putter). Die antike Wiedergabe von πρόκλυτα durch ἔμπροσθεν ἀκουσθέντα „früher gehört" bei Apollonios Sophista (ähnlich die Homer-Scholien) ist also zweifelhaft;[5] übrigens noch aus einem zweiten Grund: κλυτός bedeutet ‚berühmt' und ist in historischer Zeit kein Verbaladjektiv zu κλυ- ‚hören'. Legt man nun dieses übliche κλυτός zugrunde, so macht das Vorderglied προ- Schwierigkeiten. Wer πρόκλυτα mit ‚weithin berühmt' (oder ähnlich) wiedergibt, sollte zeigen, ob und wie aus προ- und κλυτός im Griechischen ein Determinativkompositum dieser Bedeutung zustande kommen konnte.[6] Auch sind „weithin berühmte Geschichten" zwar nicht undenkbar, aber auch nicht naheliegend; der Ruhm kommt eher den Inhalten der Geschichten—Personen, Taten usw.—zu als den Geschichten selbst.

3. Die Verbindung von **pro* und der Wurzel **k̑lu-* ‚hören' ist außerhalb des Griechischen in verbalen und nominalen Formen gut bezeugt, und zwar im Keltischen, Slavischen und Indo-Iranischen. Das Keltische darf hier wohl beiseite bleiben;[7] zum Slavischen s. §9.2. Bedeutsam ist namentlich das Indo-Iranische, und zwar insbesondere das Avestische. Im Aav. und im Jav. ist ein *frasrūta-* (Fem. *-tā-*) häufig überliefert. Es kann auf **prok̑luto-* zurückgeführt und mit πρόκλυτος lautlich zur Deckung gebracht werden:[8] eine bisher wohl nicht erörterte Möglichkeit.

4. *frasrūta-* zeigt zwei verschiedene Verwendungen, die eines typischen Adjektivs und die eines partizip-ähnlichen Verbaladjektivs. Bartholomae hat in seinem Wörterbuch die beiden Verwendungen getrennt behandelt.[9] Das typisch adjektivische *frasrūta-* übersetzt er mit ‚*inclutus*, wohlbekannt, berühmt'. Solches *frasrūta-* dient zur positiven Kennzeichnung von Gottheiten sowie von deren Qualitäten und Attributen.

[4] S. Fraenkel 1950:II 142–3.

[5] Vgl. Liddell und Scott 1940:1486b: ‚heard formerly'.

[6] Aufgrund dieser Schwierigkeit schlägt Leumann (1950:99 Anm. 55) vor, den Homertext zu ändern.

[7] Das altirische Prät. Pass. *ro·cloth* ‚wurde gehört' ist tatsächlich wie πρόκλυτος auf **prok̑lutos* zurückzuführen; bei einer Gleichsetzung der beiden bliebe aber manches unberücksichtigt, u.a. die Rolle des air. Präverbs *ro-* < **pro-* in der Verbalflexion.

[8] Der Quantitätsunterschied gr. *ŭ* : av. *u* steht dem Ansatz einer gleichlautenden Vorform nicht im Wege; vgl. Hoffmann und Forssman 2004:72. Es gibt auch die Schreibweise mit *u*: *frasruta-*.

[9] Bartholomae 1904:1004 (Adj.), 1642 (Verbaladj.).

Mehrmals werden die Frauuaṣ̌i, die weiblichen Schutzgeister, als *frasrūtā-* bezeichnet, z.B. Yt 13,35 *aṣ̌āunąm. vaŋuhīš. sūrā̊. spəṇtā̊. frauuaṣ̌aiiō. yazamaide. frasrūtā̊. vanat̰.pəṣ̌anā̊.* „wir verehren die guten, starken, heilvollen Frauuaṣ̌i der Wahrhaftigen („Ordnungshaften"), die weithin bekannten, Schlachten gewinnenden"; ähnlich Yt 13,29.30. Als *frasrūta-/-tā-* bezeichnet werden auch Miθra Yt 10,47 und Cistā ‚Einsicht' Yt 16,1. Hierher gehört wohl auch der einzige aav. Beleg, Y 50,8ab:

mat̰. vā̊. padāiš. *yā. frasrūtā. īžaiiā̊.*
pairī.jasāi. *mazdā. ustānazastō.*

„mit den Fußspuren der Labespendung, die weithin bekannt sind, will ich euch umschreiten, o Mazdā, die Hände erhoben".[10]

5.1. Eine partizip-ähnliche Verwendung ist Vr 12,2 besonders deutlich zu erkennen: *humaiia. upaŋhā̊. cīšmaide. ahunahe. vairiiehe. aṣ̌aiia. frasrūtahe. frasrāuuaiiamnahe.* „als wunderkräftig bestimmen wir die Beschäftigung mit dem Ahuna-Vairiia-Gebet, insofern es nach der Ordnung deutlich rezitiert worden ist oder deutlich rezitiert wird"; s. §5.3.

5.2. Partizip-ähnlich sind wohl auch, entgegen Bartholomaes Bestimmung, zwei weitere Belege. Y 65,3 *(yazāi. āpəm. arəduuīm. sūrąm. anāhitąm ...) masitąm. dūrāt̰. frasrūtąm.* „(verehren will ich den Fluß Arəduuī Sūrā Anāhitā ...,) den großen, aus der Ferne weithin bekannt gemachten"; Yt 8,2 *(tištrīm. stārəm. ... yazamaide.) apəmca. pərəθu.zraiiaŋhəm. vaŋuhīmca. dūrāt̰. frasrūtąm.* „(den Stern Tištriia ... verehren wir) und das sich weit ausdehnende Wasser und die Vaŋuhī, die aus der Ferne weithin bekannt gemacht ist". Das Ortsadverb *dūrāt̰* fügt sich wohl leichter mit einem partizip-ähnlichen Verbaladjektiv zusammen als mit einem typischen Adjektiv.[11]

5.3. Mag hier auch ein Zweifel möglich sein; deutlich partizip-ähnlich ist *frasrūta-* jedenfalls an der oben (§5.1) zitierten Stelle Vr 12,2, wo es mit dem kausativischen Partizip Präsens Medium *frasrāuuaiiamna-* in stilistischer Absicht[12] koordiniert ist; die beiden Formen bezeichnen verschiedene Zeitstufen der nämlichen Verbalhandlung. Somit ist *frasrūta-* eng mit dem Kausativ von *fra-sru-* verbunden. Den auffälligen paradigmatischen Zusammenhang zwischen den Verbaladjektiva auf **-ta-* und den Kausativ-Präsentien auf **-ai̯a-* verzeichnet Debrunner (1954:575). Als ved. Musterbeispiel erscheint dort das Paar *cātáyati* (Kaus.) ‚verjagt' und *cattá-* RV X 155,1–2; auch *frasrūta-* wird dort genannt, neben weiterem.

6. Das nur im Jav., nicht auch im Aav. bezeugte Kausativum *fra-srāuuaiia-*, eigentlich (etwa) ‚weithin ein Hören veranlassen' (§§5.1; 5.3), zeigt an allen Belegstellen dieselbe rituelle Verwendung, es bedeutet ‚(deutlich, offen) rezitieren, vortragen'. Nur an zwei

[10] Die Übersetzung nach Insler 1975:101, 308.

[11] Anders Bichlmeier 2011:62.

[12] Vgl. Forssman 2009:72.

Belegstellen steht *fra-srāuuaiia-* ohne deutliches Objekt, aber auch dort ist ‚rezitieren' gemeint: Erb 18,2 Kotwal/Kreyenborg (= 18,3 Humbach) *frasrāuuaiiō⟨iṯ.⟩* „er möge deutlich rezitieren"; N 104 *fraθrāuuaiiō. nōiṯ. aθrāuuaiiō.* „deutlich rezitierend, nicht nicht-rezitierend".[13] Sonst ist überall als Objekt der Name eines bestimmten Textes oder Textstückes genannt oder ersichtlich. Mehrmals sind es die Gathas: Y 57,8; N 33; N 72. Einmal ist es eine bestimmte Gatha-Partie, *„mazdā. aṯ. mōi."* (Y 34,15): V 11,14. Sehr häufig ist das Ahuna-Vairiia-Gebet (Y 27,13) Objekt, z.B. V 18,43 *ahunəm. vairīm. frasrāuuaiiōiṯ.* „er möge das Ahuna-Vairiia-Gebet offen rezitieren"; diese Wendung erscheint in mehreren Varianten. Eine davon ist patientiv formuliert: Vr 12,2 *ahunahe. vairiiehe. aṣ̌aiia. frasrūtahe. frasrāuuaiiamnahe.*; s. §5.1.

7. Außer im Kausativstamm auf *-aiia-* (und in *frasrūta-*)[14] kommt verbales *fra-sru-* im Av. nur im Inf. auf *-diiāi* vor: Y 46,13b *huuō. nā. fərasrūidiiāi. ərəθβō.* „dieser Mann ist würdig, daß er weithin bekannt gemacht werde"; Y 46,14b *kə̄. vā. fərasrūidiiāi. vaštī.* „oder wer wünscht, daß er weithin bekannt gemacht werde". Die Bedeutung dieser aav. Infinitiv-Form ist der des Kausativs insofern ähnlich, als es hier wie dort um das Veranlassen eines Hörens, also um ein ‚Zu-Gehör-Bringen' geht, nicht um ein Hören. Das bedeutet, daß keine Verbalform des häufigen av. *fra-sru-*, ob finit oder infinit, einen Hörenden als Agens impliziert. Vielmehr ist überall ein Zu-Gehör-Bringen gemeint, entweder als ein Bekannt-Machen (vielleicht Rühmen) einer Person oder als ein Rezitieren eines Textes.

8.1. Der vedische Befund weicht morphologisch teilweise ab, läßt sich aber semantisch mit dem avestischen gut vereinigen. Entsprechungen zu aav. jav. *frasrūta-* und zu aav. *fərasrūidiiāi* fehlen. Dagegen stimmt zum jav. Kausativ-Präsens *fra-srāuuaiia-* das ved. *pra-śrāvaya-*; RV VI 31,5d *prá ca śruta śrāvaya carṣaṇíbhyaḥ* „mache (uns) bei den Völkern berühmt, du Berühmter" (Geldner 1951:II 130; an Indra); RV X 49,8b *prā́śrāvayaṁ śávasā turváśaṃ yádum* „I made Turvaśa and Yadu to be famed through my power" (Jamison and Brereton 2014:III 1457; an Indra). Augenscheinlich in der gleichen Bedeutung ‚bekannt (berühmt) machen' erscheint ein lautlich abweichendes *pra-śravaya-* RV II 13,12d; X 49,8b.[15]

8.2. *prá* mit *śru-* ist im Ved. auch in Stativformen verbunden.[16] RV X 11,7ab *yás te agne sumatím márto ákṣat sáhasaḥ sūno áti prá sá śr̥ṇve* „der Sterbliche, der dein Wohlwollen erlangt, Agni, Sohn der Kraft, der wird im Übermaß (*áti*) bekannt". Ähnlich verwendet ist *prá-śr̥ṇve* auch IV 41,2d; VII 8,4a (hier mit gesteigertem *prá-pra*; „farther and farther" übersetzten es Jamison and Brereton 2014:II 893). Auch die

[13] Bemerkenswert wegen der (vor-altpersischen?) Lautung *θr* = *sr* und wegen zweiter Stilmerkmale: Aussage und negierte Gegenaussage; Weglassung des verstärkenden Präverbs in der Wiederholung.

[14] Mit *frasrūta-* steht das Handlungssubstantivum *frasrūiti-* ‚Rezitation' in engem Zusammenhang.

[15] Vgl. Jamison 1983:176.

[16] Vgl. Kümmel 1996:115; Bruno 2005:75.

3. Plur. kommt vor, RV V 87,3a *prá yé divó br̥hatáḥ śr̥ṇviré girā́* „die sich mit ihrem Loblied vom hohen Himmel her vernehmbar machen" (Geldner 1951:II 90; an die Marut).

8.3. Ganz für sich steht eine Medialform mit Reduplikation, *prá-áśuśravi*; RV X 48,8:

> *aháṃ guṅgúbhyo atithigvám íṣkaram*
> *íṣaṃ ná vr̥tratúraṃ vikṣú dhārayam* /
> *yát parṇayaghná utá vā karañjahé*
> *prā́ham mahé vr̥trahátye áśuśravi* //

> „Ich (Indra) habe für die Guṅgu den Atithigva wiederhergestellt, gleichsam als Labung hielt ich den Überwinder des Widerstands in den Siedlungen fest, als ich bei der Parṇaya-Tötung oder auch bei der Karañja-Tötung in einer großen Vr̥traschlacht weithin bekannt geworden war".

áśuśravi ist dabei als 1.Sing.Plq.Med. gefaßt und stünde somit nach der Bedeutung den Stativformen *prá-śr̥ṇve*, *prá-śr̥ṇvire* nahe. Wegen der dabei unerwarteten Ablautstufe *-śrav-* wurde auch ein kausativischer Aor. vermutet: „als ich ... mich bekannt gemacht hatte".[17]

9.1. Wie auch immer diese vereinzelte Form zu deuten ist, sie ändert nichts daran, daß *pra-śru* im Ved. nirgends einem „Hörenden" als dem Agens der Verbalhandlung zugeordnet ist. Die kausativischen Präs.-Formen auf *-aya-* bedeuten ‚ein Hören veranlassen', z.B. ‚jdn. bekannt (berühmt) machen'; die stativischen Präs.-Formen wie *pra-śr̥ṇve* bedeuten ‚sich (deutlich) zu Gehör bringen', z.B. ‚sich (deutlich) vernehmbar machen'. Insofern stimmt das ved. *pra-śru-* mit dem av. *fra-sru-* zusammen. Die Ursache für diese Gebrauchsbeschränkung liegt im Verbzusatz, dem Präverb ved. *pra-*, av. *fra-* < uridg. **pro-*. Es ist das verstärkende **pro-*, das beim Zusammentritt mit Verben der bewußten Lautäußerung bedeuten kann: ‚heraus, offen, deutlich, weithin'.[18] So zu verstehen sind die wurzelgleichen Verben ved. *pra-vac*, av. *fra-vac*, gr. προ-ειπεῖν ‚weithin künden' (o.ä.). Weitere Entsprechungen dieser Art lassen sich auch aus lat. *pro-fārī* ‚künden' und gr. προ-φήτης ‚Künder', ved. *pra-śastá-* und jav. *fra-sasta-* ‚gerühmt' gewinnen.

9.2. In diesen Zusammenhang gehört auch ein slavisches Verbum: aksl. *pro-slaviti* ‚δοξάζειν, verherrlichen, rühmen', das neben dem ungefähr synonymen, nicht durch *pro-* verstärkten *slaviti* ‚δοξάζειν, preisen, rühmen' steht. Der Wurzelablaut (*-slav-*) und das Suffix (*-i-ti*) erschweren bekanntlich die Verknüpfung dieses slav. Kausativtyps mit den Kausativ-Präsentien auf **-e̯ie-* der verwandten Sprachen. Trotzdem ist eine

[17] So wohl zuletzt Kümmel 2000:533. Reflexive Bedeutung scheint beim Kausativ von *śru-* sonst allerdings nicht bezeugt zu sein. „I spread my fame": so Jamison und Brereton: 2014:III 1455.

[18] Vgl. Delbrück 1893:718; Wackernagel 1928:238.

Entsprechungsreihe *slavi-(ti)* – *śrāvaya-* – *srāuuaiia-* nicht unwahrscheinlich.[19] Dann dürfen auch die Vorderglieder slav. *pro-*, ved. *pra-*, av. *fra-* in einen Zusammenhang gebracht werden und als gemeinsame Vorform ein uridg. Kausativpräsens **pro-k̂lou̯ei̯e-* erschlossen werden.

10. Mit dem im Av. also möglicherweise ererbten *fra-srāuuaiia-* ist dort das Verbaladjektiv *fra-srūta-* zusammengeschlossen (s. §5.3). Bezieht es sich (in typisch adjektivischer Verwendung) auf eine Person oder einen verwandten Begriff (§5.2), so bedeutet es ‚weithin bekannt, berühmt', es entsprechen dann beim Kausativ Wendungen wie RV VI 31,5 *prá … śrāvaya carṣaṇíbhyaḥ* „mache (uns) bei den Völkern berühmt" (s. §8.1). Bezieht sich *fra-srūta-* dagegen auf eine Äußerung, z.B. auf einen Gebetstext (§5.1), so bedeutet es ‚offen verkündet, deutlich vorgetragen, deutlich rezitiert'; dann entspricht im av. Kausativ etwa ein Ausdruck wie V 18,43 *ahunəm. vairīm. frasrāuuaiiōit̰.* (§6). Aus dem Ved. kann man zwei Belege (diesmal ohne das verstärkende *pra-*) heranziehen: RV I 139,3b *(ā)śrāváyanta iva ślókam* „as if making the signal-call (of the pressing stone) heard" (Jamison und Brereton 2014:I 311); VIII 96,12d *śrāváya vā́cam* „laß deine Rede hören" (Geldner 1951:II 422). In av. *frasrūta-* spiegeln sich also verschiedene Bedeutungen des **-ai̯a-*Präsens.[20]

11. Wenn πρόκλυτος, wie wahrscheinlich, mit *frasrūta-* die Herkunft gemeinsam hat, so dürfte es gleichfalls ursprünglich mit dem Kausativ von **k̂lu-* im Zusammenhang gestanden haben. Dem homerischen πρόκλυτα ἔπεα liegt dann ursprünglich eine Wendung mit kausativischem **pro-k̂lou̯ei̯e-* und einer Lautäußerung, wie hier **u̯ék^{w}es-* ‚Rede, Geschichte', als Akk.-Objekt zugrunde. Anders als im religiös geprägten Avesta sind es profane ‚Geschichten', die durch mündliche Weitergabe ‚weithin zu Gehör gebracht', also ‚weit verbreitet' sind. So etwa mag es noch zu Homers Zeit empfunden worden sein, denn immerhin steht der Wendung πρόκλυτα ἔπεα beim deutlich anklingenden hom. κλυτός und seinen vergleichbaren Komposita (ἀγα-, περι-, τηλε-κλυτός) wohl nichts genau Entsprechendes gegenüber. πρόκλυτος war offenbar mit dieser Gruppe nicht so eng verbunden, wie man aufgrund der äußeren Ähnlichkeit zunächst vermuten könnte. Das Adjektiv mag also seine ererbte Bedeutung im wesentlichen bewahrt haben.

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[19] Klingenschmitt 2005:160.

[20] Zu den Bedeutungen dieses Kausativs vgl. Jamison 1983:176; sie hält die Bedeutung ‚bekannt machen' für sekundär.

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Vedic *indrotá-* in the Ancient Near East and the Shift of PIE *h$_2$eu̯h$_1$- 'run' → Core IE 'help, favor'*

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1. The Indo-Aryan compound *indrotá-* 'helped by Indra' (RV) occurs three times in the form *in-tar-ú-da, en-dar-ú-ta* /Indraūta-/ as the name of a Palestinian prince in the Amarna letters (14th cent. BC). The coincidences in the onomastics of Syria and Palestine strongly suggest that the region was in close contact with, if not annexed to, the kingdom of Mittani,[1] which flourished ca. 1500–1300 BC in an area bordering southeastern Anatolia in the west and northern Syria in the south. Although the kingdom's population was basically Hurrian (with significant Amorite and Assyrian components), the occurrence of a series of names and terms which are clearly (an early form of) Indo-Aryan or Indo-Iranian in documents of the Mittani points unmistakably to the presence of an Indo-Aryan or Indo-Iranian population, probably a dynasty or aristocracy.

The occurrence of *indrotá-* in an earlier form /Indra-ūta-/ in the Mittani sphere in the 14th century raises some questions. On the one hand, the sense of the p.p.p. °*ūtá-* 'helped' in *indrotá-* (like that of the *aequabile* Lat. *(ad)iūtus* : *-*i-ūto-*) reflects that of Core IE *h$_2$eu̯h$_1$- 'to help, assist' (Ved. *av^i/ū* : Av. *auu/ū*, Lat. *°*i-ou-āre*):[2] the name has no formal or semantic comparandum in Anatolian of the second millennium. On the other hand, the semantics of the Anatolian reflexes of *h$_2$eu̯h$_1$- already in the first half of the second millennium (Hitt. *ḫuu̯ai-^{hhi}*, *ḫui̯a-^{mi}* 'to run', CLuv. *ḫūi̯a-^{mi}* : HLuv. *ḫuu̯ia-^{mi}* (*hù-i̯a-*) 'id.') are different: the basic sense is 'to run', not 'to help' as in all the other Indo-European languages.

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[1] Mayrhofer 1974:18.

[2] On the specification of the laryngeals see §5.

The aim of the present contribution is to make the case for a semantic shift of PIE *h$_2$eu̯h$_1$- from 'to run' to 'to help', a shift not shared by Anatolian. The attestation of *indrotá-*, which presupposes the sense 'to help', in the Mittani realm in the 14th century, when Hittite and Luvian still had the sense 'to run' for the same verb, gives a terminus ante quem for the semantic shift and sheds light on the chronology of the change, which in fact is an innovation of Core Indo-European.

2. The masculine personal name *in-tar-ú-da, en-dar-ú-ta* /Indraūta-/ (: Ved. *indróta-*)[3] is attested three times in the Akkadian Amarna letters[4] as the name of a prince of Palestine, the ruler of Akšapa under Amenophis III or IV[5] (E 367.1 *a-na* ^{I}*in-tar-ú-ta a-mēl* (LÚ) ^{URU}*ak-ša-pa* "to Indrauta the ruler of Akšapa," cf. E 223.4, E 366.23).[6]

The theonym *in-tar, in-da-ra* /Indra-/ (: *índra-*) itself is also well attested, beside other Hurrian and Akkadian gods, in the treaty between Šattiwaza of Mittani and Suppiluliuma (ca. 1380 BC). Other Indo-Iranian god-names appear in treaties of Mittani (with Hatti from ca. 1380: *a-ru-na, ú-ru-wa-na* /Varuna-/ : *váruṇa-*, *mi-it-ra* /Mitra/ : *mitrá-*, *na-ša-ti-ya-an-na* /nasatyā=nna/ : *nā́satya-*), or in Hittite texts of the 13th century (^{DINGIR}*ak-ni-iš, a-ak-ni-iš* /Agni-/ : *ágni-*).[7]

The name *in-tar-ú-da, en-dar-ú-ta* /Indraūta-/ in Palestine is universally accepted as of Mittanian origin or formed on the model of Mittanian onomastics (and as clear evidence for the presence of Indo-Iranian names in Mittani).[8] The same applies to the names *bi-ir-ya-ma-aš-da* /Priyamazd^{h}a-/ (: Ved. *priyámedha-*) 'having beloved wisdom', *šu-ba-an-du/i* /Šubandu/i-/[9] (: *su-bándhu-*) 'having good relatives' and the appellative *mani=nnu* '(neck) ornament' (: Ved. *maṇí-* : Av. *maini-* 'id.', cf. Elam.-OP **bara-mani-* 'wearing a necklace') in Palestine, and the MN *bi-ri-da-aš-wa* /Prītāšwa-/ (**prīta-aśu̯a-*) 'having beloved horse(s)'[10] in Yanuamma.[11]

In any case, two points are of relevance for our purposes:

(1) The spelling clearly points to /indra-ūta-/ with *ú* [u(:)], i.e. a form prior to the Old Indo-Aryan monophthongization /au/ > /o:/, which also reflects the Indo-Iranian situation.

(2) The compound belongs either to an extremely old form of Indo-Aryan or to

[3] With ⟨*ú*⟩ [u(:)], not ⟨*u*⟩ [o]. As H. Eichner kindly indicates to me, the spelling ⟨*-d/ta-ra*⟩ may denote [-t^{a}ra-], cf. the frequent trisyllabic scansion of *índra-* in the Rig Veda.

[4] Akkadian is used as the *lingua franca* of the letters, but there is also a Hurrian passage.

[5] Rainey 1970:89, Hess 1993:89–90 no. 87 (: *in$_4$-tar-ú-ta*, with no case marker detectable). Other possible instances of Mittanian names (*i̯a-mi-ú-ta* 'upheld, favored, protected by *Yamin*' as per Hess 1993:164–5 no. 177: *ar-ta-ma-an-i̯a*) are uncertain.

[6] A name *in-tar-ú-ut-ti* (2× Finkel 1985, Mayrhofer 1983:316–7) in a document from Nagar (Tell Brak) prior to the time of the king *ar-ta-aš-šu-ma-ra* could also be connected with *e/in-tar-ú-da-* and match a putative **indra-ūtí-* 'help by Indra', or properly possessive 'having the help of Indra' (H. Eichner, p.c.).

[7] Perhaps also *šu-ri-i̯a-áš* : *sū́rya-* 'sun god' in the Cassite glossary (Mayrhofer 1974:13–4 with nn. 12, 14).

[8] Mayrhofer 1974:18 (an "Idealfall").

[9] *šu-ba-an-di* (5×)/*-du* (1×) (Hess 1993:144–5, no. 154), *-di* perhaps a gen. case form.

[10] Cf. the semantic parallels Av. MN *frīnaspa-*, OE *frið-hengest*.

[11] Mayrhofer 1974:16, 29 (with references).

an equally old variant (or even a branch) of Indo-Iranian itself, whatever this variant should be called.[12] The same applies to the Indo-Iranian names and terms attested in a series of texts connected with Mittani: the treaty between the Hittites and Mittani (Suppiluliuma and Šattiwaza, ca. 1380 BC), the glosses in the chariot horse training text of Kikkuli (14th cent.: MH/NS copy of 13th cent.), the Hurro-Akkadian tablets from Nuzi (appellatives, horse designations). An overview of significant forms (like those attested in Palestine) allows us to state that most of the forms (a) are attested in Vedic only with no Iranian counterpart, and (b) stand in contrast to different forms in Iranian.[13]

As to (a), with no attempt at completeness: *d/tu-uš-rat-ta, tu-iš-e-rat-ta, tu-uš-e-rat-ta* /Tvaiša-ratha-/ : Ved. *tveṣá-ratha-* 'whose chariot is vehement', as well as some technical terms in the Nuzi texts (Hurro-Akkadian): *b/parita(=nnu)* : *palitá-* 'grey', *b/pinkara(=nnu)* with /r/ as against Ved. *piṅgalá-* 'red'.[14] Further personal names: *ar-ta-aš-šu-ma-ra* /Artašmara-/ : **ṛta-smara-* 'having thoughts of *ṛtá-*' (cf. *smará-* 'memory' AV+),[15] *bi-ir-ya-aš-šu-wa* /Priyāšva-/ : **priia-aśu̯a-*, *šat-ti-ú-a(z)-za* /šātiwaza-/, an earlier stage of **sāti-vāja-* 'winning the prize',[16] probably also *šu-wa-at-ti* /Šuwatti-/ 'having a good guest' (Ved. *su*°, °*átbiti-*).[17] Cf. also the Indo-Aryan glosses of Kikkuli:[18] *an-da-wa-ar-ta-an-na* /°wartana-/ : Ved. *vártana-* 'turn(ing)'.[19] As to (b), cf. *a-i-ka*° /aika°/ 'round of one' (: Ved. *éka-*), *ša-at-ta*° '7' (: *saptá*°)[20] as against Av. *aeuua-*, OP *aiva-* (also Ved. *evá-* 'the one'), YAv. *hapta-*, also the color designation of horses *b/pabru(=nnu)* (Nuzi) (: *babhrú-* 'brown') as against YAv. *baβra-* 'beaver'.

All this points to a very early form of Old Indo-Aryan, but the possibility of an early form of still undifferentiated Indo-Iranian cannot be excluded: the forms under (a), being attested only in Vedic, could perfectly well have existed in Iranian, while those under (b) may also be traced back to an early phase of Indo-Iranian (**ai̯ka-*, which may have coexisted with **ai̯u̯a-*, **sapta*), even if Iranian has another form.

A last remark is in order: whether the Indo-Aryans or Indo-Iranians of Mittani and regions under its influence were still residual groups on the way to Iran and India or came back to Near East as a superstrate must remain an open question.

[12]"noch ungeteiltes Indo-Iranisch" (Kammenhuber 1968:234), "mitannisch-Indoeuropäisch' (Eichner 2009:57–8, n. 4, 5). Assessment: Mayrhofer 1974:18, 23 n. 60, and esp. 31.

[13]Other terms may be traced back to Indo-Iranian, e.g. (Hurro-Akk.) *mišta(=nnu)* 'payment' (**mizḍ^{h}a-*, Skr. *mīḍhá-* : Av. *mižda-*).

[14]Most probably archaic West Indo-Aryan (Mayrhofer 1974:30).

[15]Hess 1993:38 no. 30; Mayrhofer 1974:20.

[16]Cf. Ved. *vā́ja-sāti-* 'winning of a prize', *vā́jasya sātí-* (: *san*^{i}, cf. °*sáni-*/°*sā́-* '-winner'), YAv. °*han-* (nom. °*hā-*) in *nmāna-ŋhan-*/*-ŋhā-* "qui conquiert la maison" (Kellens 1974:106–11).

[17]From */atHti-/ (Pinault 1998:454–5, with reference to other putative names in *-atti*).

[18]The form *a-aš-šu-uš-ša-an-ni* /aššušša=nni/ is a Hurrian word in °*nni*, from an old Indo-Aryan compound with *aš-šu-u̯a* : *áśva-*). A less plausible alternative would be a regular compound /ašvāsani-/: *aśva-sáni-* 'master horse trainer' (*'having (gotten) horses'), cf. *go-ṣáṇi-*, °*ṣán-*, °*ṣā́-* 'getting cows', *vāja-sáni-*, °*ṣā́-* 'who wins the prize' (RV).

[19]The Kikkuli form may reflect a Hittitized **u̯arta-tar/-tan-* (as per Eichner 2009:58 n. 5), cf. also 3rd pl. (hybrid) *an-da wa-ar-ta-an-zi* 'they turn'.

[20]Other numerals in the Kikkuli texts: *ti-e-ra*° '3', *pa-an-za*° '5', *na-a-u̯a*° '9' (: Ved. *tri*°, *páñca*°, **náu̯a*°).

3. Ved. *indrotá-* 'helped by Indra'[21] (with °*ūtá-*, the p.p.p. of *av*^{i}/*ū* 'to help, assist') is directly attested as a proper name twice in the Rig Veda as a giver of gifts, son of king Atithigva, in 8.68 (a *dānastuti-*): 15a *ṛjrā́v indrotá ā́ dade* "From Indrota I received the two silvery ones," 17ab *ṣáḷ áśvām̐ ātithigvá indroté vadhū́mataḥ* "I gained six (horses), along with the brides [?] from the son of Atithigva, from Indrota..."[22] Indra is in fact referred to as *ákṣitoti-* 'providing imperishable help' (1.5.9, 4.17.16, 8.3.15).

Other verbal governing compounds of identical structure with *índra*° as their first member and a verbal adjective in *-ta-* as their second are attested since the Rig Veda: *indréṣita-* 'impelled by Indra' (2.22.8 etc.), *índra-dviṣṭa-* 'hated by Indra' (9.73.5), *índra-pīta-* 'drunk by Indra' (of Soma; 9.8.9), *índra-vāta-tama-* 'most cherished by Indra' (of help, pl. *ūtíḥ*; 10.6.6) and *índra-prasūta-* 'thrust forth by Indra' (of All Gods: 10.66.2a).

Ved. °*ūtá-* actually occurs only in governing compounds of the same structure as *indrotá-*, in which the first member always refers to a divinity, including Indra (2.11.16, 6.19.13, 8.51.2, 10.148.1), namely *tvóta-* 'protected by you' (22×), beside *tvóti-* (3×, of Mitra and Soma), and *yuṣmóta-* 'favored/protected by you' (of the Maruts).

4. The sense of the p.p.p. °*ūtá-* 'helped' (: unattested Av. **ūta-*) in Ved. *indrotá-* (: *av*^{i}/*ū*, Av. *auu*/*ū*) perfectly matches that of its formal correspondence in Latin, namely p.p.p. **ūto-* 'helped', which has been remodelled to *i-ūtus*, *ad-i-ūtus* (: pres. *(ad)i-uuō*, with *i*-reduplication, see below): both forms may be traced back to **HuH-tó-* from PIE **Heu̯H-* 'to help, assist' (where **H-* and **-H-* may only be elucidated with the help of other languages, §5), underlying Ved. *av*^{i}/*ū*, (pres. *áv*$^{(i)}$*-a-*^{ti}) : Av. *auu*/*ū* and Lat. *°(*i-*)*ou-ō*, *-āre* 'id.'.

Let us briefly recall the reflexes of **Heu̯H-* in Vedic and Latin, which, in spite of the difference in the present stem,[23] display a series of precise equations and *aequabilia*:[24]

[21]*Indrotá-* is also a priest (I. Daivāpa Śaunaka) in ŚB 13.5.3.5, .4.1, also in SSS 16.7.7, .8.7 (at the horse sacrifice of Janamejaya), as a pupil of Śruta (JUBr 6.20.8) (Macdonell and Keith 1912:78–9). The semantics of the name are indirectly reflected also in voc. *índratvota-* 'helped by you, Indra' (1.132.1, 8.19.16), a conflation of *índra-* and *tvotá-* (**tvā́-ūtá-*, cf. 1.132.1ab *tváyā vayám maghavan pū́rviye dhána / índratvotāḥ sāsahyāma pṛtanyatáḥ* "With you, bounteous Indra, aided by you, may we overcome those who do battle over the foremost stakes.")

[22]Cf. also 8.19.16cd *vayáṃ tát te śávasā gātuvíttamā índratvotā vidhemahi* "in that (brilliance) of yours might we receive ritual shares, (becoming) the best pathfinders by your power, helped (also) by you, Indra."

[23]Vedic has the simple thematic *áva-ti* [**Héu̯H-o/e-*], whereas Latin has an *i*-reduplicated present *i-uuō*, *iuuāre*. The reduplication, originally proper only to the present stem, has been reinterpreted as part of a new Latin root and occurs in the entire paradigm (perf. *i+uuī* ← **ou̯(a)+u̯-ai̯* < **He-Hou̯ə-* : Ved. *ā́v-*). The 1st-conjugation pres. *i-uua-* might be explained from an earlier **i̯ou̯-a-* (cf. subj. IOVENT CIL 1.364) from a reduplicated athematic **Hi-Hou̯H-*, with the survival of a reflex of the stem-final laryngeal as *a* (cf. Lat. *arā-re* : **h$_2$erə$_3$-*) instead of joining the 3rd conjugation after weakening. An alternative would be to start from a thematic **Hi-HuH-o/e-* of the *bibit* type (Specht 1938; 1944:53-6). The 1st conjugation form could then be explained as backformed from the compound *ad-iuuā-* (cf. *appellāre* zu *pellere*; Meiser 1998:188). In this case the full-grade *-ou̯-* may be analogical with that of the perfect.

[24]García Ramón 1996:38–9; 2012:156.

p.p.p.	Ved. *ūtá-* (**HuH-tó-*)	: → Lat. *(ad) i+ūto-* > (°)*iūtus*
ptc.	Ved. *ávant-* (**Héu̯H-ont-*)	: → Lat. *(ad) i+uant-* > (°)*iuāns*
-tu-stem	Ved. dat. *ávitave* (**Héu̯ə-tu-*)	: → *(ad) i+ūtu-* > (°)*iūtum*

and the derivatives

Ved. *avitár-* 'helper' (**Heu̯ə-tér-*)	: → Lat. *(ad) i+ūtor* (Pl.+)
Ved. *avitrī́-* 'helper' (**Heu̯ə-tr-ih*$_2$*-*)	: → Lat. *ad-i+ūtrix* (Pl.+)
Ved. *omán-* 'protection'[25] (**He/ou̯(H)-men-*)	: → Lat. *ad-i+ūmentum* (Pl.+)

The striking comparanda between Vedic and Latin, two languages which differ in so many respects, point unmistakably to a common inheritance, to be traced back at least to Core Indo-European. Furthermore, both verbs may express the same state of affairs, namely a human being helped by a god(dess), cf. for instance RV 5.51.13ac *víśve devā́ no adyā́ svastáye … devā́ avantv ṛbhávaḥ svastáye* "Let all the gods be there for us today, for well-being … Let the gods, the Ṛbhus give aid for (our) well-being," Pl. *Per.* 755 *bene nos, Iuppiter, iuuisti* "You helped us well, Jupiter,"[26] Pl. *Ps.* 905 *si umquam quemquam di immortales uoluere esse auxilio adiutum* "if the immortal gods have ever wanted to have someone being supported by their help,"[27] where the p.p.p. *adiūtum* matches Ved. (°)*ūtá-*. The same state of affairs is expressed by means of the participles and the agent nouns:

(1) Ved. *ávant-* (referring, among others, to Indra): RV 6.18.9ab *udávatā tvákṣasā … vṛtrahátyāya rátham indra tiṣṭha* "with your helpful energy, up and mount your chariot, Indra, for the Vṛtra-smashing,"[28] and, with *figura etymologica*, 7.46.2c *ávann ávantīr úpa no dúraś cara* "come helpful to our helpful-minded" (of Rudra).[29] For Latin cf. Cic. *Fam.* 7.2.6 *meque dis iuuantibus ante brumam exspectabis*,[30] Ter. *An.* 522 *id spero adiuturos deos.*[31]

(2) Ved. *avitár-* as epithet of Indra (10.24.3c *índra stotṝṇā́m avitā́*, 8.13.26a, 6.47.11a), also of Agni (3.19.5 et al.) and Pūṣan (3.62.9 et al.), as well as fem. *avitrī́-* (3×) of Heaven and Earth (2.32.1c *bhūtám avitrī́ vácasaḥ* "become the helpers of this speech") and of Sarasvatī.[32] In Latin, the simplex *iutor, iutrix* occur as the epithets of Jupiter

[25] Ved. *omán-* is used to refer the favor of of Agni (5.43.13), of All Gods (6.50.7), of the Aśvins (1.34.6 et al.). The derivative *ómātrā-* 'favor' (10.50.5b *mahím̐ ta ómātrāṃ kṛṣṭáyo viduḥ*) refers to Indra.

[26] Cf. *As.* 15 *ut uos … nunc Mars adiuuet.*

[27] Cf. Pomp. Mela, *De Chorogr.* 2.78 *in quo Herculem contra Alebiona et Dercynon, … dimicantem cum tela defecissent ab invocato Ioue adiutum imbre lapidum ferunt.*

[28] Cf. also 8.73.7a *ávantam … gṛhám* "a helpful house" (for Agni), 1.152.6a *ā́ dhenávo māmateyám ávantīr* "aiding the son of Mamatā … the milk-cows."

[29] Cf. 1.185.4a *átapyamāne ávasā́vantī* "the two [i.e. Heaven and Earth] who are never scorched, (always) giving help with their help … "

[30] Cf. Cic. *Phil.* 3.36; Sal. *Jug.* 85.48.1.

[31] Also with non-divine agent: Ter. *Ph.* 3–4 *uirtus nobis restituit locum / bonitasque vostra adiutans*, Cic. *Phil.* 10.4.7 et al. With explicit acc. object Liv. 6.4.6.3 *tum … re publica impensas adiuuante.*

[32] Cf. also 6.61.4c *dhīnā́m avitry àvatu*, 7.96.2c, as well as *ū́ma-* 'helper', epithet of All Gods (4.19.1).

and Venus, respectively, cf. Iove ivtori (*CIL* 9.5531.1), Venvs ivtrix (BMCI 4, p. 516). The same applies to *adiūtor*[33] (Cic. *Tusc.* 1.28 *Tyndaridae fratres, … non modo adiutores … uictoriae populi Romani*) and to *adiutrix*, which occurs as epithet of several goddesses: Cic. *Dom.* 144 *Minerua, quae semper adiutrix … exstitisti*, *Cael.* 52 *Huic facinori … Uenus adiutrix esse non debuit*,[34] Ov. *Met.* 7.195 *Hecate quae coeptis conscia nostris adiutrixque uenis.*

5. The Indo-Iranian and Latin forms cited thus far only permit the reconstruction **Heu̯H-*, but the Greek (and additional Latin and Celtic) evidence points decisively to initial *h_2-,[35] as Anatolian will confirm (§7). Lat. *aueō*, *-ēre* 'to desire' (*h_2*ou̯*h_1*-éi̯o/e-*), which, in my opinion, belongs to the same root, clearly points to PIE *h_2*eu̯*h_1-. The root is actually represented in Anatolian in Hitt. *ḫuu̯ai-/ḫui̯a-*[ḫḫi] 'to run' and its Luvian and Lycian cognates, but only with the meaning 'to run', as I shall try to show (§§7–8). The original sense of *h_2*eu̯*h_1- 'to run', preserved in Anatolian and in some residual forms of Greek (s. below), developed two different meanings following two distinct semantic paths, namely [run] → [help] (Ved. *av*^{i}*/ū*, …) (§9) and [run (for)] → [desire] (Lat. *aueō*, *-ēre*, probably, but not necessarily, through an intermediate [give preference]), with a former accusative of direction which becomes the object of 'to desire'.[36] Let us turn first to the essentials of *h_2*eu̯*h_1- (till now **Heu̯H-*) outside Anatolian.

An initial *h_2-, i.e. *h_2*eu̯H-* is to be assumed on the strength of (a) *ἀίτας* 'friend' (Theocr.) and, indirectly, (b) Hom. *ἐνηής** 'friendly'.[37] As to (a) cf. Theocr. 12.14 *τὸν δ' ἕτερον πάλιν ὥς κεν ὁ Θεσσαλὸς εἴποι ἀίτην*,[38] Hsch. *ἀίτας ἑταῖρος*, and Alcm. fr. 35i *ἀίτας κάλλα μελισδομέναι*: PGk. **au̯-ītā-* is the counterpart of Ved. *avitár-* (cf. Ved. *sákhā … avitā́* RV 6.33.4),[39] Lat. *adiūtor*. As to (b), Hom. *ἐνηής* (*scil.* *ἑταῖρος*) 'friendly, ready to help' (°*āu̯es-*: *"having help in himself"),[40] points to PGk. **áu̯o/es-* (*h_2*éu̯H-es-* : Ved. *ávas-*, Av. *auuah-*),[41] also *ἐνηείη** in gen. (*Il.* 17.670 *νῦν τις ἐνηείης Πατροκλῆος*

[33] Also as the title of officials in inscriptions.

[34] Cf. Tib. *Eleg.* 1.2.16 *fortes adiuuat ipsa Uenus.*

[35] The assumption of *h_1- has nothing in its favor, *pace LIV*² s.v. *h_1*eu̯H-* "helfen, fördern," supposedly connected with Hitt. *ii̯a(u)u̯a-*[tta] 'to recover', and different from *h_2*eu̯-* "genießen" (Lat. *auēre*), with pres. *h_1*i-*h_1*éu̯H-/*h_1*uH-* (whence Lat. *iuuō*, *-āre*).

[36] On this see García Ramón 2012 with reference to Lat. *accersō*, *-ere* (**ad-kers-s-o/e-*) 'to go forth' → 'to fetch' (Pl.+) and to PIE **nes-* 'to come (where one will)' (García Ramón 2004) → 'to desire' : TB *ñäsk-* (**nes-sḱo/e-*), also TB *ñyas* → TA *ñās* 'desire' (Malzahn 2007).

[37] A further argument in favor of *h_2- could be Gk. *ἄε-θλον* 'prize', if from *h_2*eu̯*h_1*-d*^{h}*lo-* "objet de préférence, de valeur", "ce par quoi se réalise la valeur" (Pinault 2006:397–8).

[38] Cf. *Schol.Vet. in Theocr.* Ἀΐτης ἐπειδὴ τοὺς ἐρωμένους ἀίτας ἔνιοι καλοῦσιν ὡς οἱ Θεσσαλοί καὶ γὰρ Ἀλκμάν (fr. 35i) τὰς ἐπεράστους κόρας λέγει ἀίτιας οἱ δ' ἀίτας τοὺς ἑταίρους.

[39] "Compagnon secourable" (Pinault 2006:402–3).

[40] Glossed as *πρᾶος* 'mild' (*Schol. D ad* P 204), *ἐπιεικής* et sim. Hsch. *ἐνηέας· προσηνεῖς, ἀγαθούς. συνετούς. ἐπιεικεῖς, Eust. 3.931 Πάτροκλον, …, ὡς οἱ παλαιοί φασι, τῷ Ἀχιλλέως ἑταίρῳ τῳ τοὺς Ἀχαιοὺς περιποιησαμένῳ, τῷ φιλοίκτῳ, τῷ συμπαθεῖ, τῷ ἔνηεῖ, Sud. ἐνηέος : τοῦ πράου. καὶ ἐνηής, ὁ πρᾶος. ἐνήεια : ἡ πραότης (García Ramón 1996:42–3).

[41] The term *ἐνηής**, referring to Patroklos (the *ἑταῖρος par excellence*) seems in complementary distribution

δειλοῖο / μνησάσθω·). That Hom. °ηής conceals *°ā̆u̯es- (and not *°ē̆u̯es) is assured by the pair ἀίτας :: Hom. ἐνηής* (*au̯-ī́-tā- :: *°au̯o/es-, *áu̯os) which matches the pattern of Θερσίτης :: °θέρσης, θέρσος.

As to the _ultima laryngalis_, an argument in favor of *h$_2$eu̯h$_1$- is Lat. _au-ēre_ 'be eager for, long (for), desire',[42] which, though a synchronic stative in Latin (cf. _au-idus_), may be traced back to an intensive *h$_2$ou̯h$_1$-éi̯e- 'long for' (*'run to/for'), whence Lat. _auē-_ by Thurneysen-Havet's rule. Lat. _auēre_ has a perfect formal match in OIr. _con·oí_ 'protects' (*kom-h$_2$ou̯h$_1$-éi̯e-ti[43]), MW _ry-m-awyr_ 'mayest thou grant me', which reflects the sense 'help, assist' of Ved. _av^1/ū_ and Lat. (°)_iuuō, -āre_. Lat. _auārus_ 'eagerly desirous, avaricious, greedy' presupposes the existence of *au̯ā- (*h$_2$(o)u̯h$_1$-éh$_2$-: R. Garnier, p.c.), for which there is indirect evidence in Lycian (§8).

Some glosses of Hesychius, labelled as Arcadian and Cyprian, support the existence of an appelative οὖνος 'course, race', with the athematic denominative οὔνημι*: οὖνον· [ὑγιές.] Κύπριοι δρόμον, οὔνιος, οὔνης· δρομεύς. κλέπτης, and ipv. οὔνη· δεῦρο. δράμε. Ἀρκάδες. Gk. οὖνος (i.e. *h$_2$ou̯h$_1$-no-) turns out to be a part of the dossier of *h$_2$eu̯h$_1$-, even if it is not informative about the two laryngeals. On the assumption that the form underlies the second member of ἐρι-ούνιος, ἐρι-ούνης[44] (Hom. +), an epithet of Hermes, a god who is a runner and a helper _par excellence_, E. Langella has convincingly shown that the epithet is to be interpreted as 'the one who runs speedily' (literally *'who has a course _at the highest level_'), as well as 'the one who helps _at the highest_' (ἐρι° 'high(ly)'), with reference to _h.Dem._ 407 εὖτέ μοι Ἑρμῆς ἦ[λθ]' ἐριούνιος ἄγγελος ὠκύς (_h.Pan_ 28/9 Ἑρμείην ἐριούνιον . . . / . . . ὡς ὅ γ'(ε) . . . θοὸς ἄγγελός ἐστι) and to _h.Herm._ 28 Διὸς δ' ἐριούνιος υἱὸς / . . . / "σύμβολον ἤδη μοι μέγ' ὀνήσιμον, οὐκ ὀνοτάζω . . . 34 . . . · ὄφελός τί μοι ἔσσῃ, / οὐδ' ἀποτιμήσω· σὺ δέ με πρώτιστον ὀνήσεις" etc.[45] The twofold personality of Hermes ἐριούνιος _in Graeco ipso_ points to a twofold meaning for οὖνος, and for *h$_2$eu̯h$_1$-, namely 'run' (attested in the Arcado-Cyprian glosses), and 'help, assist' (as in several Core Indo-European languages).

with ἐρίηρ*, ἐρίηρος (García Ramón 2006:841–3): ἐνηής* occurs only in acc. (ἑταῖρον ἐνηέα _Il._ 8.200, 17.204 +), gen. (ἑταίροιο ἐνηέος 20.252 +), once dat. ἐνηέι (ὡς οὔ οἱ πατρώι' ἐνηέι ⟨ἐν⟩ φιλότητι _Theb._ fr. 2.9 _apud_ Athen. 11.14) as against ἐρίηρος, which usually occurs in formulas in nom. sg. (ἐρίηρος ἑταῖρος 4.266), nom. acc. pl. (ἐρίηρες ἑταῖροι, ἐρίηρας ἑταίρους), the only exception being /ἐρίηρον ἀοιδόν #/ not ἑταῖρος.

[42] García Ramón 1996; 2012. A root *av^2 'eat' is also assumed for Vedic: ipf. _ā́vayas, -at_ 'ate' (suppletive 2, 3 sg. of _ad_ as per Hoffmann 1982:63–7, cf. Ved. _aviṣyú-_ 'greedy (of food), _áviṣ-_ *'nourishment'). Whether _av^2_ is to be traced back to a different root *h$_2$eu̯- 'desire' or to a specialization of _av^1/ū_ is irrelevant at this point.

[43] Cf. García Ramón 1996:45–6; 2012:157. _Aliter LIV^2_ s.v. *h$_2$eu̯- "genießen" (*h$_2$ou̯-éi̯e-), de Vaan 2008 s.v. _aveō_ (*h$_2$eu̯-eh$_1$- "to enjoy, consume"), Vernet i Pons 2008:151 (*h$_1$u̯-eh$_1$-i̯e- originally "aver gaudit"), Schumacher 2000:176–7 (OIr. _con·oí_ from *h$_1$au̯H-).

[44] For *οὐνά from *h$_2$ou̯h$_1$-néh$_2$, cf. ὦνος : ὠνή/Dor. ὠνά, Lesb. ὄννα, with denominative ὠνέομαι, deriv. ὤνιος, comp. εὔ-ωνος, εὐ-ώνης (Langella forthcoming).

[45] Langella forthcoming. The term is glossed as 'helper' or as 'greatly serviceable', cf. _schol. in Il._ 20.34 (ἐριούνης . . . ἐπεὶ οὖν μετὰ λόγου ποιοῦνται τὴν μάχην οἱ Ἕλληνες, βοηθεῖ αὐτοῖς;), _schol. in Od._ 8.322 (ἐριούνιον λέγει τὸν Ἑρμῆν . . . ἢ μεγαλωφελὴς, ἐκ τοῦ ἐρι ἐπιτατικοῦ καὶ τοῦ ὄνησις ἡ ὠφέλεια;), _EM_ p. 374 rr. 20–6 (Ἐριούνιος· Χθόνιος, ἀγαθὸς, πολυωφελὴς, κλέπτης, μέγας . . . Παρὰ τὸ ἐρὶ ἐπιτατικὸν καὶ τὴν ὄνησιν, ἐριόνιος, ὁ μέγα ὠφελῶν· ὠφελιμώτατος γὰρ ὁ Ἑρμῆς . . .)

The evidence dealt with thus far lets us reconstruct the more precise Core PIE *h$_2$eu̯h$_1$- 'to help, assist' and to enlarge the list of comparanda given in §4:

*h$_2$eu̯h$_1$-	IIr. *Hau̯H-	: →	Lat. (°)_i+uu̯o/e-_ : → (°)_i+uuāre_
*h$_2$(e)u̯h$_1$-ent-	IIr. *Hau̯ant-	: →	Lat. (°)_i+uuānt-_
*h$_2$uh$_1$-tó-	Ved. _ūtá-_ (Near East) _indrotá-_	: →	Lat. (°)_i+ūto-_ > (°)_iūtus_
*h$_2$éu̯ə$_1$-tu-	Ved. _ávitave_	: →	Lat. supin. (°)_i+ūtu-_ → (°)_iūtum_
*h$_2$eu̯ə$_1$-tér-	Ved. _avitár-_	: →	Lat. _ad-i+ūtor_
*h$_2$eu̯ə$_1$-tr-íh$_2$-	Ved. _avitrī́-_	: →	Lat. _ad-i+ūtrīx_
*h$_2$e/ou̯h$_1$-men-	Ved. _omán-_	: →	Lat. _ad-i+ūmentum_ (Pl. +)
*h$_2$éu̯h$_1$-es-	Ved. _ávas-_, Av. _auuah-_	:	PGk. *au̯es- (Hom. ἐν-ηής*) and ἀίτας
*h$_2$ou̯h$_1$-éi̯o/e-	—		Lat. _au-ēre_ 'to desire' : OIr. _con·ói_ 'protects'
*h$_2$ou̯h$_1$-éh$_2$-	—	: →	Lat. _auārus_ 'desirous, greedy'
*h$_2$ou̯h$_1$-no-		:	οὖνος 'course', Arc. οὔνημι*, Hom. ἐρι-ούνιος, ἐρι-ούνης

Note that two of the forms above (Lat. _auēre_ and PGk. *h$_2$ou̯h$_1$-no-) also point unmistakably to a sense 'run'.

6. At the time of the attestation of Ved. _indrotá-_ in the Mittani sphere (14th cent.), no direct comparandum is attested in the Indo-European languages of Anatolian: the common term for 'to help, assist' is different, namely Hitt. _u̯arr-, u̯arreš-_, denom. _u̯arrai-_, CLuv. _u̯arraḫ-it-_, HLuv. _u̯ariia-_ (and Hitt. _u̯arr(i)-_ 'help', HLuv. _u̯arra/i-_ 'help, aid').[46] Other lexemes for the same meaning occur in names that match the semantics and word-formation of Ved. _indrotá-_ (type Διό-δοτος), namely Hitt. ^{m}_Tarḫu-mimma-_ 'favored by Tarhunt-' (cf. _mimma-_^{hhi} 'to regard, favor'), and, in the first millennium, Lyc. _Masa-uwēt(i)-_ 'regarded by the gods' (with °_uwēt(i)-_, °_wēme/i-_ of *u- 'to see, regard', cf. Hitt. _au̯-/u-_^{hhi} 'id.').[47] But the fact is that Anatolian languages of the second millennium do not have a full match for *°ūtá- 'helped'. The Anatolian reflexes of *h$_2$eu̯h$_1$- at this time mean 'run' (§7), as it is evident in the appellative CLuv. _ḫuta-_ 'haste', MHitt. _ḫūt/da-_ (*h$_2$uh$_1$-tó-, with lenition) which matches Ved. °_ūtá-_ only formally.

[46] The term for 'help, aid ' _u̯arra/i-_ occurs only in a different type of rectional compound with first member (X_{DATIVE} : deity, person, entity): HLuv. /Parni-warra/i-/, i.e. DOMUS-_ni-wa/i+ra/i-_ 'help to the house(hold)'; /Tarḫu-u̯arra/i-/ : TONITRUS-_u-wa/i+ra/i-i-_ 'help to Tarhunt-'; FRATER-_la-wa/i+ra/i-_ 'help to the brother'; /Huhha-warra/i-/ (: AVUS _ha-wa/i+ra/i-_ 'help to the grandfather'). See Melchert 2013:38 with references.

[47] Melchert 2013:41–2, 47.

7. PIE *h$_2$eu̯h$_1$- 'to help, assist' is represented in Anatolian by Hitt. *ḫūu̯ai-*[ḫi], *ḫui̯a-*[mi] 'to run', CLuv. *ḫūi̯a-*[mi] : HLuv. *ḫuu̯ia-*[mi] (*ḫù-i̯a-*) 'id.' and, still in the first millennium, by Lyc. *xuu̯a-*[mi] 'stand close' (?, cf. §8):[48] their etymology and stem formation are controversial,[49] but their meaning is straightforward at least for Hittite and Luvian, and the same applies, with a slight semantic shift to 'stand close', in Lycian.

(1) Hitt. *ḫuu̯ai-/ḫūi̯a-* 'to run, flee', CLuv. *ḫūi̯a-* (: HLuv. *ḫù-i̯a-* 'id.', as well as Lyc. *xuwa-*, may be traced back to IE *h$_2$eu̯h$_1$- without any difficulty: initial *h$_2$- is reflected as *ḫ-* in Hittite and Luvian, and as *x-* in Lycian.[50] The stem-final *-h$_1$- has no segmental reflex in any Anatolian language. Hittite and Luvian fit synchronically into the pattern of the type *dāi-/tii̯a-*, *piddāi-/pittii̯a-*, and therefore may reflect an *i*-present (*h$_2$éu̯h$_1$-i-e-i/*h$_2$uh$_1$-i-énti?).[51]

(2) The sense in Hittite and Luvian is 'to run, rush, flee' without any connotation of 'help', or 'assist'. This connotation is not inherent in the lexeme itself, cf. for instance in Hittite the lexicalized ptc. [LÚ]*ḫui̯ant-* 'fugitive',[52] or the causative *ḫue/inu-* (cf. KBo 22.5 obv. 9′ *ḫ*]*u?-u-e-nu-un* 'I let him run'). Cf. also CLuv. *ḫuta-* 'haste', MHitt. *ḫūt/da-*, (c.; n. in NHitt.), probably a Luvian loanword.[53]

(3) Any reference to 'help' is expressed exclusively by means of (a) an explicit mention of *u̯arra/i-* 'help', or (b) the lexicalized expression *peran ḫuu̯ai-* 'to help' (*'run ahead'), the causative *peran ḫue/inu-* 'send forth' (auxiliary troops)',[54] or *peran ḫuii̯atalla-* (c.) 'helper' (*'going ahead/first') and gen. *peran ḫui̯au̯aš* (neutr. *-u̯ar*) 'of protection'. As to (a) cf. e.g. KUB 23.72 rev. 20 *u̯a-ar-ra-aš ud-da*[*-ni-i*] *šu-me-eš ma-aḫ-ḫa-an pa-ra-a ḫu-u̯a-ad-du-ma* "as you rush for a matter of assistance." Cf. the same extension by [for HELP][55] in HLuv. ×BONUS-*ti-i* ×*HWI-i̯a-ta* 'run for favor' (: abl.sg. *u̯a-ša-ra-ti*) in the Babylon-Stele 1–2 (9th cent.) *u̯a/i-mu-ta′* TONITRUS. *ḪALPA-pa-u̯a/i*!*-ní-ša* [DEUS]TONITRUS-*ša* ×BONUS-*ti-i* ×*HWI-i̯a-ta* "For me Halabean Tarḫunzas run with favor" (Hawkins 2000:392–3).

As to (b) cf. e.g. KUB 14.15 rev. ii 43′–4′ [...*ANA* KARAŠ[ḪI.]A] GÌ[R-*i*]*t pé-ra-an ḫu-u-i-i̯a-nu-un* "I protected my army" (*'marched on foot in front of my army'). Cf. also KUB 2.1 obv. ii 25 *ŠA La-ba-ar-*]*na pé-ra-an ḫu-i-i̯a-u-u̯a-aš* [D]LAMMA-*ri* "to Labarna, the tutelary god of running-ahead," which perfectly matches the theonym

[48]Rightly Laroche 1979:66; Carruba 1977:295 (references in Neumann 2007:142–3), *pace* Melchert 2004:86.

[49]"No good etymology ... available for *huwai-*" (Jasanoff 2003:95). Some unsatisfactory proposals: to PIE *h$_2$u̯eh$_1$- 'blow' (another root-structure, the wind does not run; Puhvel [1991:420] connects the verb with Ved. *véti*, Hom. Gk. ἵεμαι, which is phonetically impossible).

[50]Lycian, moreover, excludes *h$_3$-.

[51]Jasanoff 2003:93–5. Hitt. *ḫuu̯ai-* instead of *ḫuu̯i-* may be a back-formation on the weak stem 3rd pl. *hui̯anzi* (*h$_2$uh$_1$-i-énti). *Aliter* Kloekhorst 2008:367 (hardly convincing in terms of an *-oi-/-i- suffix).

[52]The term reflects the sense 'flee', cf. KUB 3.4 obv. ii 31 *na-aš-mu-kán ḫu-u-u̯a-iš* "he escaped from me."

[53]See Starke 1990:362–4. Cf. also HLuv. *ḫutišama(/i)-* to iterative *ḫutiša-* (hesitantly Hawkins 2000:546).

[54]No connection with the alleged προθέω in *Il.* 1.291 τοὔνεκά οἱ προθέουσιν ὀνείδεα μυθήσασθαι (*pace* Puhvel 1988).

[55]Cf. the parallel construction in Cic. *Att.* 12.3.2 *uereor ne iste* ... Ἀτύπῳ *subsidio currat*.

[d]*U̯arraḫitaššala-*, the Luvian Stormgod of Help (cf. Luv. *u̯arrai-t-*, *u̯arraḫ-it-* 'help' : PIE *u̯erH-).

(4) Some special lexicalizations of forms belonging to *h$_2$eu̯h$_1$- are also attested:

(a) Hitt. *šer ḫui̯ant-* '(who is a) supervisor', i.e. *'who runs *above*' (Hitt. *šer*, Lyc. *hri°*), namely *šer ḫui̯anza eštu* 'let (the commander) be the supervisor', lexicalized from *'let ... (be) run(ning) above'. Cf. KUB 31.84 iii 60–1 (service instructions): [*A-NA / ma-a-an*? NAM.R]A[ḪI.A]*-ma ku-u̯a-pí* NUMUN[ḪI.A] *an-ni-iš-kán-zi nu a-ú-u̯a-ri-aš* EN-*aš* [*ḫu-u-ma*]*-an-da-aš-ša* IGI[ḪI.A]*-ŠU še-ir ḫu-i̯a-an-za e-eš-tu* "(If) the deportees are sowing seed somewhere, let the commander of the watchtower be supervisor (: *obseruāre*) also of them all as to his eyes." Hitt. *šer ḫui̯ant-* cannot be kept apart from Lyc. *hri-xuwama* (*hri°* 'above') 'id.' (from *'running above', i.e. 'the supervisor', cf. §8).[56]

(b) 'to be witness', 'assist' from *'to run together/with' (cf. NHG *Mitläufer*, Sp. *compañero de viaje*), cf. CLuv. dat.sg. *ḫūu̯ai̯alli* [D]UTU-*i* (gloss in the prayer of Muwatallis II to the assembly of gods (KUB 6.46 iv 53, NH), the epithet of the sun-god equivalent to Hitt. *kutru(u̯an)-* 'witness' dat. *kutrui* [D]UTU-*i* (attested in the duplicate 6.45 iv 56): I NINDA.GUR$_4$.RA *⸗ḫu-u-u̯a-i̯a-al-li* [D]UTU-*i pár-ši-i̯a-a*[*z-zi*] "... and he breaks a thick bread for the Sun-God [D]UTU-*i* as *ḫu-u-u̯a-i̯a-al-li*."

(c) Hitt. *ḫu-u-tar-la/i-* /hūtarla/i-/, CLuv. *ḫutarlā-* 'slave, servant',[57] with deriv. *ḫutarli(i̯a)-*, (n. *ḫŭtar 'haste'). The same semantic path is recognizable in Lyc. *xddaza-* (< *xudaza-) 'slave'[58] (§9). This specialization anticipates the shift 'run' to 'help, assist'.

8. Lyc. *xuwa-*, which cannot reflect a root formation *h$_2$éu̯h$_1$-t/*h$_2$uh$_1$-ént,[59] may be interpreted as the denominative from an *a*-substantive *xuu̯a- (of the type *C(o)C-éh$_2$), with 3.sg. /-ati/ by extension from 3.pl. /-ānti/ (*-āi̯ónti).[60] The assumption of a *h$_1$(o)u̯éh$_2$- with continuants in Lyc. *xuu̯a- and Lat. *au̯ā- (in *auā-rus*, §5) finds a parallel in Luvian, in the very same semantic field, namely CLuv. *u̯arraḫ-**[61] (: noun *u̯arraḫ-it-* 'help', cf. the denominative *(anda) u̯arrāi-* 'to help, support' beside *u̯arr-*), and in Lat. *suppetiā-rī* 'to help' beside *suppetiās īre*, and is perfectly conceivable in view of the same pattern in *h$_2$ou̯h$_1$-no- → denom. Arc. οὔνημι*.

Lyc. *xuwa-* has two meanings which do not exactly match 'to run', but may be traced back to specializations of the original meaning—'to assist' and 'be related to',

[56]Melchert 2004 s.v. Lyc. *hrixuwama-*.

[57]Eichner 1983:58–9, Starke 1990:364.

[58]Eichner 1983:58–9, Starke 1990:363, with *-(a)za*-suffix, cf. *kumaza-* 'priest' (: *kuma-* 'holy').

[59]This reconstruction is incompatible with the *-a-* of *xuwa-*, which cannot be the reflex of *-h$_1$- in any form of the paradigm.

[60]Cf. Hajnal 1995:130–1, who stresses the coexistence of homonymous nouns and denominative verbs in Lycian, cf. *kumaza-* 'priest' : *kumaza-*[mi] 'to be priest', *la-* 'dead' : *la-*[mi] 'to be dead', *sm̃ma- 'command, prohibition' (*sHimn-ā- < *sh$_2$i-mn-eh$_2$-) : *sm̃ma-*[mi] 'to bind', *prñnawa-* '(grave)house' : *prñnawa-*[mi] 'to construct'.

[61]Starke 1990:155–7.

both matching ἐγγύτατος εἶναι *'to stand close to' (_vel sim._) in the Greek version of the trilingual inscription of Xanthos: (N 320.11) _se=de_ : _Eseimijaje_ : _xuwati=ti_ : _s/e=i_, rendered in the Greek version as καὶ ὅς ἄν Σιμίαι ἐγγύτατος ἦι τὸν πάντα χρόνον (320G.9–10) "and whoever may stand closest to Simias for all the time." Cf. ἐγγὺς (παρ)ἐστάναι 'to stand close to' + dat. (Aesch.).[62] The sense 'stand close' may be traced back to *'run together with' with two possible special nuances: (a) "who _assists/attends_ him (as priest)," and (b) "who is _related_ to someone," either a son (: _tideimi_), or a young brother (: _epñnēne/i-_), or as a direct descendent (: _esedẽñewe/i-_).[63]

Both senses may be assumed for 3rd sg. _xuwati_ in the funerary inscription of Kaş (TL 80.2–3) _se=i=ni ñtepi tãtu tike ne=de xuwati=ti ne me=i m=ene_ / [_Trq_]_as tubidi se Malija hrixuwama_ "... and one may not put into/bury (_ñtepi tãtu_) someone, who does not _xuwati_. If not, so will the God Trqqnt- punish him, and also Malija (: Athena) _hrixuwama-_." 3rd sg. _xuwati_ may be understood as (a) '(the one who is) a relative/collaborator' (cf. _xddaza-_ 'servant, helper' §7), or as (b) '(the one) who has an agreement/license' (to be placed in a grave), which would fit into the formulary of grave inscriptions in Lycia and would match the frequent συγχωρεῖν of Greek inscriptions of Lycia.[64]

As to the difficult form _hri-xuwama-_, we assume that it is a form of a participle or _*-mo-_ derivative, with the preverb _hri_° 'on, above' : Gk. ἐρι° 'high, highly' (loc. _*ser-i_)[65] which strikingly matches Hitt. _šer ḫuu̯ant-_ 'the supervisor' i.e. '*(the one) who runs above'.[66] Lyc. _hri-xuwama-_, as an epithet of Malija, the Lycian Athena, has close parallels in the Greek epithets of Athena ἐπίσκοπος (Solon), Πότνι' Ἀθηνάων ἐπιήρανε (_Ant.Gr._), ἐπίκουρος (Nonnus), as I have tried to show elsewhere,[67] and is certainly connected with Gk. Ἐριούνιος, Ἐριούνης, the epithet of Hermes (§5).

To sum up: the meanings of Lyc. _xuwa-_ may be explained as semantic developments of 'to run', namely 'to assist', which occurred in Anatolia, in this very language, in the first millennium, and not before (§7). The plausible reconstruction of _*h$_2$(o)u̯h$_1$-éh$_2$-_ (Lyc. _xuwa-*_, Lat. _auā-*_ in _auārus_ 'eagerly desirous') and of _*h$_2$ou̯h$_1$-no-_ (οὖνον Κύπριοι δρόμον et sim.) and its occurrence with locative _*sér(-i)_ (Lyc. _hri-xuwama-_, Hitt. _šer ḫui̯ant-_, Hom. ἐρι-ούνιος) point to the existence of a phraseological pattern limited to Anatolian and Greek (cf. §10).

[62] _Eum._ 65f. διὰ τέλους δέ σοι φύλαξ, / ἐγγὺς παρεστὼς "and I will stand close to you forever, as your guard ..." Cf. _Pers._ 686 ἐγγὺς ἑστῶτες τάφου "standing close to my tomb."

[63] Cf. Starke 1990:350 n. 1236 ("und wer dem Eseimijaje (Simias) jeweils verwandt ist").

[64] Cf. for instance TAM II 69–70 [ἐπὶ τῷ τ]εθῆναι ἡμᾶς αὐτοὺς [καὶ] τὰ ἐξ ἡμῶν κ[αὶ ο]ἷς ἂν αὐτοὶ ζῶντες / [συνχ]ωρήσομεν ἕτερος δὲ ἐξουσίαν οὐχ ἕξει. Further instances in García Ramón 2015:139 with nn. 50, 51.

[65] Cf. Willi 1999:95–6. The form is attested also in Gk. ῥίον 'promontory', Myc. PN _ri-jo_ (_*srii̯o-_, cf. Heubeck 1964).

[66] García Ramón 2015:130–5. _Aliter_ "der Ober-Nahestehende/am nächsten Stehende" or loc. to _hrixuwama-_ "in supervision" or "super-intending" _vel sim._ (Melchert _per litteras_).

[67] García Ramón 2015:135.

9. On the strength of the evidence presented above, we may assume that PIE _*h$_2$eu̯h$_1$-_ originally meant 'to run, hasten', as still attested in Hittite and Luvian, and that the meaning 'to help, assist' found in the other IE languages (Ved. _áv-a-_ : Av. _auu-a-_, Lat. _(ad)iuuō_, _-āre_ ..., §4) reflects a semantic shift in "Core Indo-European": the early sense 'to run' is still recognizable in Hom. Ἐριούνιος, and in the Arcadian and Cyprian glosses and, indirectly, in Lat. _aueō_, _-ēre_, and _auārus_.

The semantic pathway [(ADVERB) RUN] to [HELP] is in fact paralleled by other Indo-European lexemes for 'to fly' or 'to run', which mean 'help, assist', with no trace of motion, especially with some preverbs. Some instances:

(1) PIE _*peth$_2$-_ 'to fly': Hitt. _piddai-/pittii̯a-_ 'run', also 'flee',[68] Lat. _suppetō_, _-ere_ 'to turn up as a support, give backing (to)' with variant _suppetiās īre_ with _sub_°,[69] and no trace of motion, e.g. Pl. _Epid._ 397 _omini omnes suppetunt res prosperae_.[70]

(2) Lat. _sub-currō_, _-ere_ 'to help': cf. Verg. _Aen._ 1.630 _non ignara mali miseris succurrere disco_.[71]

(3) Hom. ἐπίκουρος (_*°kors-ó-_, cf. Lat. _currere_), with denominative ἐπικουρέω, as well as βοηθόος 'who runs (to the call) for help' (°θοος), with denom. βοηθέω, Class. Gk. βοηδρομέω.

(4) OIr. _fo·reith_ 'succurrit',[72] OW _guo-rit_ 'id.' (cf. Lat. _rota_ 'wheel', Ved. _rathá-_ 'chariot'), _do·reith_ 'accurrit'.

The semantic shift from [RUN] (to somewhere/someone) to [ASSIST, STAND BY] may happen even without an adverb, as seen in Lycian _xuuua-_ (§8), and is supported by e.g. Go. _þiu-magus_ 'servant' (PGmc. _*þe(g)u̯a-_ 'id.', which matches Ved. _takvá-_ 'swift' to _*tek^w-_ (: Ved. _tak-_, OIr. _teichid_, Lith. _tekė̃ti_ 'to run, flow', OCS _tešti_).[73]

To sum up: the semantic shift [(ADVERB) RUN] → [HELP, ASSIST] we propose for _*h$_2$eu̯h$_1$-_, normally but not necessarily with an adverb (Lat. _sub_, _ad_, Gk. ἐπί, OIr. _fo_), as well as → [ASSIST (someone)], [STAND CLOSE TO]: with ABOVE (Hitt. _šer_, Lyc. _hri_°, Gk. ἐρι°) is supported by comparative evidence.

[68] Watkins 1975:93, cf. for the data _CHD P_ 352–5.

[69] Lat. _sub_° also adds the noemes [APPROXIMATION] (_sub-gredior_ 'come close up (to)') and [DIRECTION UPWARDS] (_sub-siliō_ 'jump up', _sub-uolāre_ 'fly upwards' vs. _dē_° 'down'). On the other hand, _succēdō_ 'to go up' and 'to go under'.

[70] Cf. also Liv. 2.56.8 _lingua non suppetebat libertati animoque_, and _sup-petias ire/uenire_ (_alicui_) 'to go/come to help' (Watkins 1975:93–4), _suppetias ferre_ (_alicui_) 'to bring help', _suppetiae esse_ (_alicui_) 'to be of help', e.g. Pl. _Men._ 1020 _tibi suppetias temperi adueni modo_, _Epid._ 659 _memento ... suppetias mihi ... ferre_ (also _Epid._ 677, later also _suppetiārī_ Apul.).

[71] The original character of verb of motion is still recognizable in Classical Latin (cf. Caes. _Gal._ 5.44.9 _succurrit ... illi Uorenus et laboranti subuenit_), also with _subueniō_, which is not always a verb of motion (cf. Pl. _Cas._ 337 _quis mihi subueniet tergo aut capiti aut cruribus_ "Who will help me, my back, my head, my legs?"

[72] M.Weiss kindly indicates to me that the original meaning 'run under' survives in _Audacht Morainn_ 56–7 _fonnath fod·rethat_ "the wheel rims which run under him." Cf. also MN _Voreto-virius_.

[73] Eichner 1983:59, cf. also Brugmann 1906:380 with further semantic parallels.

10. The Anatolian evidence allows us to enlarge the table of the reconstructable forms for *h$_2$eu̯h$_1$- given in §6. Here are given a selection of those relevant for the chronology of the semantic shift from [RUN] to [HELP] in Core Indo-European:

	PIE: Anat. 'to run' →	Core IE 'help, assist'
*h$_2$eu̯h$_1$-	(→)Hitt. *ḫuu̯ai-*^{hhi}	IIran. *Hau̯H- : Ved. *av^i/u* :→ Lat. *(ad) i+uuāre*
*h$_2$ou̯h$_1$-no-		οὖνον . . . δρόμον, οὔνιος, οὔνης δρομεύς Arc. οὔνημι* (οὔνη . . . δράμε)
*ser(i) h$_2$eu̯h$_1$-	Hitt. *šer ḫui̯ant-* Lyc. *hri-xuwama-*	
*seri h$_2$ou̯h$_1$-no-		Hom. 'Ερι-ούνᾱς, 'Ερι-ούν-ιος

We can therefore conclude that PIE *h$_2$eu̯h$_1$- 'run', an inherited lexeme, had still retained its original meaning when Anatolian separated from Proto-Indo-European. The semantic shift to 'help, assist' is a Core IE innovation, not shared by Anatolian. This is especially evident in the case of a perfect formal equation, the reflexes of which stand in sharp contrast from the semantic point of view in Hittite as against Vedic and Latin, namely PIE *h$_2$(e)u̯h$_1$-ent- : Hitt. *ḫui̯ant-* *'running'[74] (intransitive) has been lexicalized as ^{LÚ}*ḫui̯ant-* 'fugitive', cf. KUB 26.17 obv. ii 4′ *nu kuiš* ^{LÚ}*ḫu-i̯a-an-da-an ú-e-mi-iš-ki-iz-zi na-an a[p-]pí-iš-ki-id-d[u]* "whoever finds a fugitive shall seize him," KUB 19.18 obv. i 13′ *pé-ra-an ḫu-u-i-i̯a-tal-la-aš=ma . . . [pé-ra-a]n ḫu-u-i-i̯a-an-za e-eš-ta* "as helper . . . he was the helper." Contrarily, Ved. *ávant-* 'helping' (transitive) and Lat. *(ad)iuuans* 'id.' (and frequentative *adiutans*) are fully synonymous and reflect the meaning 'help' (§4), cf. RV 6.18.9ab *udā́vatā tvákṣasā . . . indra* "with your helpful energy, . . . Indra" and Lat. *dis iuuantibus* (Cic.+). The same applies to the formal match CLuv. *ḫuta-* 'haste' (MHitt. *ḫūt/da-*) as against p.p.p. Ved. °*ūtá-* 'helped', Lat. *(ad)iūtus* (§7.2).

The contrast between Anatolian and the languages of Core Indo-European in the terms for 'run' and 'help' is clear. In Anatolian of the second millennium, where the reflex of *h$_2$eu̯h$_1$- retains the meaning 'to run', the terms for 'help' (Hitt. *u̯arr-*, *u̯arrešš-*, *(anda) u̯arrāi-*, HLuv. *u̯aria-*, CLuv. *u̯arraḫit-*) are expressed by another lexeme, namely PIE *(s)u̯erH- 'to pay attention, to assist' (cf. Hom. ἦρα 'favor'). In Core Indo-European, where *h$_2$eu̯h$_1$- has shifted to 'help', 'to run' is expressed by other lexemes: Ved. *syand-*, *abhi-dhāv-*, Gk. θέω, τρέχω/δραμεῖν, Lat. *currō*, OIr. *reithid* 'runs'. The sense 'to run, hasten' of *h$_2$eu̯h$_1$- still survives residually in Core IE languages, namely in the glosses οὖνον Κύπριοι δρόμον, οὔνη· δεῦρο. δράμε, Hom. ἐριούνιος, and also in Lat. *auēre* 'desire' (*'run to'), *auārus*.

A final remark is in order: the evidence of Anatolian and Greek permits the recon-

[74] Any connection with *ḫuu̯ant-* 'wind' (*h$_2$ueh$_1$nt-, cf. Ved. *vātá-*, Lat. *uentus*; IE *h$_2$u̯eh$_1$- 'blow', cf. Ved. *vā́ti*, Gk. ἄησι), being formally possible, is hardly convincing given the difference in semantics and collocations.

struction of a concrete phraseological pattern, expressed by means of two identical lexemes (loc. *sér(-i) 'above', *h$_2$eu̯h$_1$- 'run', the latter with different formations), with an identical semantic shift in Anatolian, namely

[ABOVE RUN] → [ASSIST]? → [SUPERVISE, OBSERVE]

The pattern is recognizible in Hitt. *šer ḫuu̯anza ēštu* 'let him supervise', Lyc. *hri-xuwama-* 'supervisor', an epithet of Malija, and Hom. ἐρι-ούνιος, ἐρι-ούνης, an epithet of Hermes, a god who runs and helps at the highest degree (ἐρι°), which reflects both the old and the new senses of *h$_2$ou̯h$_1$-no-. The formal coincidence between Anatolian and Greek in the phraseological pattern may result from areal contact or be understood as Anatoliansm in Ionic Greek. Whether the epithet 'Ερι-ούνιος has been continued witin Greek by PGk. *^{oh}eri-u̯ērH-(o)- : Ion.Hom. (psilotic) ἐρί-ηρος 'favorable' : Myc. MN *e-ri-we-ro* /*Eriwēro-*/ and ἐπι-ήρανος 'pleasing, acceptable' (*Od.* 19.343), post-Hom. 'assisting' remains an open question.

11. The presence of Ved. *indrotá-* as /Indra-ūta-/ in the 14th-century Mittani realm, i.e. at the time when it may be assumed to have been current in Old Indo-Aryan (Ved. *av^i/ū* 'help, assist', Indo-Iranian *Hau̯H- : PIE *h$_2$eu̯h$_1$-) is particularly remarkable: in the Anatolian languages of the second millennium PIE *h$_2$eu̯h$_1$- is well attested, always with a different sense, namely 'run', as clearily shown by the contrast between Hitt. ^{LÚ}*ḫui̯ant-* 'fugitive' (*'runner') and Ved. *ávant-* 'helper', and there is no compounded name matching the type and the verbal lexeme of *indra-ūtá-. This shows that the term for 'to help' in Core Indo-European (*h$_2$eu̯h$_1$-) already existed in Indo-Aryan or Indo-Iranian (*Hau̯H-) and had been exported to the Near East before ca. 1400, i.e. at a time when Anatolian still preserved the old sense 'to run' for that lexeme.

The sharp contrast between the semantics of the Anatolian reflexes of *h$_2$eu̯h$_1$- and that of all the other languages in which the lexeme has survived points to a semantic shift which had still not taken place in Anatolian, namely 'to run' → 'to help, assist'. The shift, which implies in fact a non-trivial common innovation of Core Indo-European not shared by Anatolian, joins other instances of similar shifts, like that of PIE *no/ek^{u}t- 'twilight' (Hitt. *nekut-* 'twilight' [morning and evening], and *neku-*$^{mi/tta}$ 'to become twilight') → Core IE 'night' (Lat *nox*, Gk. νύξ, Ved. *náktā-uṣā́sā* 'night and dawn', etc.)[75] or that of PIE *peh$_3$(i)-, *peh$_3$(s)- 'to take a gulp' (momentative: Hitt. Luv. *paš(š)-*^{mi} 'to swallow', NHitt. *pappaš-* 'id.') → Core IE 'drink' (pres. *pí-ph$_3$-o/e-: Ved. *píbati*, Lat. *bibit*, etc. vs. aor. *peh$_3$-: Ved. *(á)pāt*, etc.).[76] For the shift of PIE

[75] As pointed out separately by C. Melchert (forthcoming, with reference to Pinault 1990:181–90 for Tocharian) and H. Eichner (2015:17). The Hittitte term for 'night' is *išpant-* (cf. *kṣáp-* 'darkness, night' : YAv., OP *xšap-*).

[76] Hitt. *eku-*^{mi} 'to drink' and Tocharian AB *yok-* 'id.' (with suppletive aor. *tsuk-*) reflect PIE (durative) *h$_1$e(h$_2$)g^{uh}- 'id.' (Kim 2000:164–5). The Core Indo-European innovation was to integrate *pí-ph$_3$-o/e- (originally 'to take gulps repeatedly': iterative Aktionsart) in the framework of an aspectual opposition as against

$*h_2eu̯h_1$- 'to run' to Core IE 'to help, assist' the presence of /Indra-ūta/ in the letters of Amarna (14th century) provides us with a terminus *ante quem* for the innovation, which can only be welcome.

Abbreviations

CHD = Güterbock, Hans G., and Harry A. Hoffner (eds.). 1989– . *The Hittite Dictionary of the Oriental Institute of the University of Chicago.* Chicago: The Oriental Institute of the University of Chicago.

LIV^2 = Kümmel, Martin, and Helmut Rix (eds.). 2001. *Lexikon der indogermanischen Verben: Die Wurzeln und ihre Primärstammbildungen*. 2nd ed. Wiesbaden: Harrassowitz.

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aor. $*peh_3$-. A PIE suppletive paradigm with pres. $*h_1e(h_2)g^{uh}$- :: aor. $*peh_3(i)$- remains plausible (García Ramón 2002:123–6).

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The Sanskrit Source of the Tocharian 4×25-Syllable Meter

DIETER GUNKEL

1 Tocharian meter as an indigenous tradition

Were Tocharian meters influenced by Indic meters, and if so, to what extent? Since the outset of Tocharian studies, the prevalent opinion has been that the Tocharian metrical tradition, which is shared by both Tocharian languages, is independent of the Indian tradition. In Sieg and Siegling's original formulation, "Die tocharische Metrik scheint selbständig dazustehen und nicht der indischen entlehnt zu sein" (1921:x).[1] The supposed independence of the metrical form of Tocharian poetry may seem surprising given that the poetic texts are translations and adaptations of Buddhist Sanskrit originals. Furthermore, the Tocharian Buddhists did adopt the form of narration known as *campū*, in which prose and verse alternate.[2] However, Tibetan shows that it is possible to retain and modify indigenous meters for the translation/adaptation of Sanskrit texts.

Two distinctive differences between Sanskrit and Tocharian meter are taken to advocate the latter's independence. First, Tocharian meter does not seem to regulate syllable weight. Second, Tocharian verse-internal cola, i.e. the metrical units delimited by caesurae, are only 3–6 syllables long, which is shorter on average than Sanskrit cola, to judge from the traditional metrical treatises. For example, four of the five most common Tocharian meters are matched with respect to verse length in syllables by eight relatively common Sanskrit meters.[3] The average Tocharian colon length is

[1] See also Watkins 1999:614 ("There is no obvious external contact source for Tocharian meter, the system of isosyllabic verse lines rigorously divided into even or uneven cola, and organized into four-line stanzas") and Pinault 2000:153 ("Le système de versification, en dépit des termes d'origine indienne, est totalement étranger à celui de la métrique du sanskrit").

[2] On the Tocharian adoption of *campū*, see Pinault 2008:407.

[3] "Relatively common" is here defined as belonging both to Velankar's (1949b) "list of metres used for continued narration" and Hahn's (2014) list of "the 25 most frequently used Sanskrit meters." For the cola of the Tocharian meters, which have strophes of 4 verses of 12 syllables ("4×12"), 4×14, 4×15, and 4×17, see Pinault 2008:399; Bross, Gunkel, and Ryan 2014; and Peyrot forthcoming. Velankar (1949a) gives the cola of the Sanskrit comparanda, i.e. the 4×12-syllable *Drutavilambita*, *Pramitākṣarā*, and *Vaṃśastha*, the 4×14 *Vasantatilaka*, the 4×15 *Mālinī*, and the 4×17 *Narkuṭaka*, *Mandākrāntā*, and *Hariṇī*.

4.4 syllables versus 8.9 in Sanskrit.[4] The second difference has emerged more clearly as further caesurae have been identified in various Tocharian meters. Let me briefly illustrate this and introduce the Tocharian 4×25.

2 The Tocharian 4×25

Sieg and Siegling (1921:x–xi) first described the Tocharian meter whose stanza consists of four metrically identical 25-syllable verses/pādas, which they dubbed the "4×25." It is one of the best-attested meters in both Tocharian A and B. In a sample of 3,102 pādas of Tocharian B poetry drawn from *CEToM*, it is the best-attested meter by syllable, making up 17.8% of the sample.[5] Sieg and Siegling identified caesurae (ˡ) after the 5th, 10th, and 18th syllables (σ) of the verse/pāda:

σ σ σ σ σ ˡ σ σ σ σ σ ˡ σ σ σ σ σ σ σ σ ˡ σ σ σ σ σ σ σ

According to their description, the pāda consisted of four cola of various lengths, which we can represent shorthand as 5ˡ5ˡ8ˡ7. Stumpf (1971:71–2) identified two further caesurae after syllables 14 and 22. These are sometimes considered to be "minor" or "secondary" caesurae (ˌ) that divide cola into subcola (e.g. Pinault 2008:398–9), though the diagnostics for their minor status are partly problematic (see below):

σ σ σ σ σ ˡ σ σ σ σ σ ˡ σ σ σ σ ˌ σ σ σ σ ˡ σ σ σ σ ˌ σ σ σ = 5ˡ5ˡ4ˌ4ˡ4ˌ3

Stanza 15 of the story of the nun Sundarī (THT 15 a7–8 + THT 17 a8–b2), from the eighth book (the *Vācavarga*) of the Tocharian B *Udānālaṅkāra*, recently edited with translation and commentary in Hackstein, Habata, and Bross 2014, exemplifies the meter. Pādas are printed on two lines for typographical reasons, caesurae and junctures involving clitics (-, +) are marked, and restorations and emendations are in parentheses and square brackets, respectively. The pāda-final punctuation and the stanza-final numeral are original, in accordance with the Tocharian scribes' usual practice, which facilitates the identification of the meter in more fragmentary contexts.

sū temeñ sraukaṃ ˡ nraine tänmastär ˡ
    māka lykwarwa ˌ māka cmela ˡ māka lkāṣṣäṃ ˌ läklenta :
māka pudñäkti ˡ tsaṅkaṃ śaiṣṣene ˡ
    ṣärpsentär-ne ˌ ālyauce+ka ˡ nraiṣṣe wnolme ˌ tallāntä :
spelke sompastär ˡ krentats sū wnolmets ˡ
    nāki welñe ˌ preresa ceu ˡ aunaṣṣän-me ˌ arañcne :

[4] If we disregard "minor" caesurae (§2), the Tocharian average is 5.75.

[5] The ten best attested meters by syllable in the TB sample are 4×25 (17.8%), 4×14 (11.9%), 4×12 with 5+4+3-syllable cola (11.8%), 4×15 (10.9%), 4×17 (9.6%), 4×18 (9.2%), 21/21/18/13 (6.6%), 13/13/13/13/21 (5.1%), 4×12 with 4+4+4-syllable cola (3.6%), and 14/11/11/11 (3.1%).

aiśamñe spaktā(ṃ) $^{|}$ ślek+ompalskoññe $^{|}$
 cowai ram+no $_{|}$ tärkana[ṃ-m]e $^{|}$ pälskoṣṣana $_{|}$ krentauna 15

[Richtet jemand gegen einen solchen Tadel und Verleumdung, die gegenstandslos ist,] und stirbt dieser deswegen, so wird er in der Hölle wiedergeboren, viele Male, und erlebt viele Wiedergeburten und Leiden. Erheben sich viele Buddhas auf der Welt, so weisen sie einander auf dieses unglückliche Höllenwesen hin. Den Eifer raubt ein solcher den guten Wesen. Mit diesem Pfeil des Tadelaussprechens trifft er sie (die Guten) ins Herz. Wissen, religiösen Dienst sowie die Fähigkeit zur geistigen Versenkung (Meditation) raubt er ihnen gleichsam, und somit die geistigen Güter. (Hackstein, Habata, and Bross 2014:53)

The caesurae are quite strict, as can be seen from Figure 1, which plots the incidence of verse-internal word boundaries in the 4×25. The TB data are based on a corpus of 217 partly fragmentary pādas drawn from seventeen texts.[6] The TA data are based on a smaller corpus of forty non-fragmentary pādas drawn from fifteen texts.[7] Junctures preceding enclitics and following proclitics are not counted as boundaries.[8] The incidence of boundaries is predictably similar: a Spearman's rank-order correlation yields a strong, positive correlation (ρ = .89), which is statistically significant ($p < .0001$).[9] The overlapping error bars also give a sense of how insignificant the differences between the two data sets are.[10] The high incidence of word boundary after syllables 5, 10, 14, 18, and 22 reflect the caesurae.

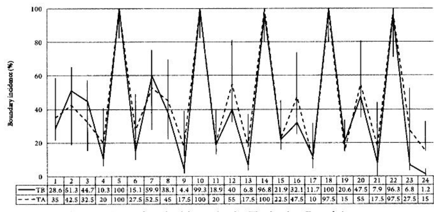
[6]PK AS 6E (13 pādas), 7D (3), 7E (24), 7F (23), 7G (25), 7H (6), THT 8 (6), 16 (12), 17 (27), 18 (15), 19 (20), 20 (2), 73 (6), 74 (2), 108 (8), 128 (2), 496 (5).

[7]A 20 (2), 63 (2), 66 (2), 217 (5), 218 (2), 244 (2), 247 (2), 248 (4), 249 (3), 253 (6), 254 (3), 259 (4), 312, 315+316 (3).

[8]Following Bross, Gunkel, and Ryan 2014:6 n. 8 and Koller 2015, I treat the following forms as clitic. Enclitic in TA: ***aci*** '(starting) from'; the modal particle ***aśśi***; the emphatic particles ***ats***, ***atsaṃ***, ***atsek***; the comparative particle ***oki*** 'like'; the negative polarity item ***ontaṃ***; the ablative and allative pronouns ***anäṣ*** and ***anac***; the conjunctions ***śkaṃ*** 'and, also' and ***nu*** 'and, but'; the disjunction ***pat*** 'or'; the focus particles ***pe*** and ***penu***; and the relative particle ***ne***. Proclitic in TA: the prepositions ***śla*** 'with' and ***sne*** 'without'. Enclitic in TB: the emphatic particles ***ka***, ***nai***, ***nta***, ***pi***, ***ra***, ***tsa***; the comparative particle ***ram(t)***; the indefinite pronouns ***kca***, ***ksa***; the conjunctions ***no*** 'and, but', ***spä/ṣäp/sp/ṣ*** 'and, also', ***wat*** 'or', and ***wa*** 'therefore'; ***ñke*** 'now', ***tne*** 'here(upon)'; and the forms of 'to be' ***ṣai/ṣey*** and ***ste***. Proclitic in TB: the prepositions ***śle*** 'with' and ***snai*** 'without'.

[9]Running this on the number of boundaries as opposed to the percentages is slightly problematic: the TB data contains fragmentary verses, so the total number of boundaries per metrical position ranges from 149 (most lacunae) to 165 (least lacunae). Nevertheless, this yields similar values (ρ = .89, $p < .0001$).

[10]These are 95%-confidence Clopper-Pearson intervals for proportions (Clopper and Pearson 1934).



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
—— TB	28.6	51.3	44.7	10.3	100	15.1	59.9	38.1	4.4	99.3	18.9	40	6.8	96.8	21.9	32.1	11.7	100	20.6	47.5	7.9	96.3	6.8	1.2
- - - TA	35	42.5	32.5	20	100	27.5	52.5	45	17.5	100	20	55	17.5	100	22.5	47.5	10	97.5	15	55	17.5	97.5	27.5	15

Figure 1. Boundary incidence in the Tocharian B and A 4×25.

A case can be made for the minor status of the caesurae after syllables 14 and 22. As discussed by Bross, Gunkel, and Ryan (2014:3–5), the violability of caesurae is currently the only reliable way to distinguish between major and minor caesurae.[11] While the poets realize the caesurae after syllables 14 and 22 at least 96% of the time in both TA and TB 4×25, they are nevertheless violated 6× as frequently as the other, major caesurae, and the difference is statistically significant (Fisher's Exact Test p = .0013).

	Respected	Violated	N
primary (after σ 5, 10, 18)	568 (99.6%)	2 (.4%)	570
secondary (after σ 14, 22)	386 (97%)	12 (3%)	398
		total caesurae =	968

Caesura violability thus supports their minor status and points to some hierarchical structure (5)(5)(4$_{|}$4)(4$_{|}$3). In the four Tocharian meters that have been closely studied, all and only the caesurae between 4- and 3-syllable cola are minor as diagnosed by violability (Bross, Gunkel, and Ryan 2014:3–5). The 4×25 provides a further case of (4$_{|}$3) and supports the existence of the (4$_{|}$4) cola described, for example, in Pinault 2008 and Peyrot forthcoming:

4×12: $5^{|}4_{|}3$

4×14: $4_{|}3^{|}4_{|}3$

4×15: $4_{|}3^{|}3^{|}5$

4×18: $4_{|}3^{|}4_{|}3^{|}4$

4×25: $5^{|}5^{|}4_{|}4^{|}4_{|}3$

[11]Studies of the alignment of syntax and meter are an obvious desideratum.

Comparing prose constituents with the verse cola of the first four meters listed above, Bross, Gunkel, and Ryan (2014) find that there are fewer boundaries than expected in colon- and some verse-penultimate positions, apparently reflecting the avoidance of constituent-final monosyllables. In the more robust TB data plotted in Figure 1, the two points with the lowest boundary incidence are after the 9th (4.4%) and 24th (1.2%) syllables, which may indicate half-verse (h) and verse (v). If so, the constituency of the 4×25 would be

$$(((\sigma\sigma\sigma\sigma\sigma)(\sigma\sigma\sigma\sigma\sigma))_{\mathrm{h}}(((\sigma\sigma\sigma\sigma)(\sigma\sigma\sigma\sigma))((\sigma\sigma\sigma\sigma)(\sigma\sigma\sigma)))_{\mathrm{h}})_{\mathrm{v}}.$$

The motivation for the organization of the cola is not immediately clear.[12] I will argue below that the caesurae are carried over from the *Krauñcapadā*, where their location is clearly motivated.

3 Tocharian meter as influenced by Sanskrit

Having provided the 4×25 with a fuller description, let us return to the scholarship regarding the relationship between Sanskrit and Tocharian meter. Widmer (2006) challenged the independent status of Tocharian meter, pointing out that aside from the non-regulation of weight, most Tocharian meters are structurally like the Sanskrit *samavṛttas*, whose stanzas consist of four metrically identical, isosyllabic verses/pādas (*catuṣpadī*) that are often further articulated by caesurae. Widmer compared the structure of four Sanskrit *samavṛttas* with four Tocharian meters, claiming that they correspond both in syllable count and in the location of the caesurae, which I refer to as the "colometry." Since then, it has become clear that two of the comparisons cannot be upheld, since they are based on a frequently cited but empirically unfounded analysis of the Tocharian 4×15 (Bross, Gunkel, and Ryan 2015). The remaining comparisons are between the Tocharian 4×15 and the Sanskrit *Candrāvartā*, which I cannot discuss here, and the Tocharian 4×25 and the Sanskrit *Krauñcapadā*; note that Widmer cites the colometry of the latter pair as "5|5|8|7," i.e. without reference to Stumpf's (minor) caesurae.

While Widmer's study has had some resonance (cf. Pinault 2008:400–1), the comparisons above have apparently not convinced scholars that the Tocharian meters in question were borrowed/adopted from Sanskrit. I suspect this is because the following two questions have not yet been addressed. First, were the Tocharians familiar with meters like the *Krauñcapadā*, which are described in metrical treatises but rarely or never attested in Sanskrit poetry? Velankar (1949b) gives a sense of just how rare the *Krauñcapadā* is. The author compared the meters listed in ten metrical treatises

[12] It is possible that the shorter 3-syllable subcolon in the (4,3) units may have a clausular function, marking verse-end in the 4×25 and 4×12, and both half-verse- and verse-end in the 4×14 (cf. the concept of "saliency" in Hayes and MacEachern 1998; Kiparsky 2006; Ollett 2012), but it is not clear whether an analysis along these lines could be extended to the 4×15 and 4×18, let alone the other twenty-five or so Tocharian meters.

with the actual poetic practice in twenty-eight Mahākavis of the ancient and medieval periods and found that of the 600 ***samavṛttas*** of the ***catuṣpadī*** (4×*n*) type listed in the treatises, the poets only used only 28 frequently, and another 103 "for a change and ornamentation" (51). The ***Krauñcapadā*** is not among those 128. And second, why does the 4×25 have two more caesurae than the *Krauñcapadā*? Let us take a closer look at the attestation and structure of the *Krauñcapadā*.

4 The *Krauñcapadā*

The Sanskrit metrical treatises describe the *Krauñcapadā* as a 4×25-syllable meter with a 5|5|8|7 colometry and the following rhythm, beginning with Piṅgala's *Chandaḥśāstra* (7.30):[13]

– ⏑ ⏑ – – | – ⏑ ⏑ – – | ⏑ ⏑ ⏑ ⏑ ⏑ ⏑ ⏑ ⏑ | ⏑ ⏑ ⏑ ⏑ ⏑ ⏑ –

Outside the metrical treatises, the *Krauñcapadā* is to my knowledge only attested once, namely in five surviving stanzas of a buddhastotra discovered in the "Rotkuppelraum" of the Kizil caves (*CEToM*'s "Qizil Miŋ-Öy") during the third German Turfan expedition (1905–7).[14] The stanzas, numbered 6–10 in the manuscript, were edited and translated in 1955 by Schlingloff, who dubbed the stotra *Preis der Bekehrungen Buddhas*.

After the Buddha achieves release (*vimokṣa*) and brings tranquility (*upaśama*) to the good (stanza 6), the poet dedicates a stanza to each of four miraculous conversions, that of the demon Āḍavaka (7), the snake king Apalāla (8), the elephant lord Nālāgiri (9), and the finger-collecting serial killer Aṅgulimāla (10). The conversion of Nālāgiri, depicted here as a rampaging bull elephant in musth, should give a sense of the meter and the quality of the poem. Schlingloff's conjectures and emendations are given in parentheses and square brackets, respectively. I have marked caesurae, clitic-host junctures (+), and compound boundaries (-), which the poet treats as (or much like) word boundaries with respect to caesurae (§5):

> roṣa-vivṛtta-|vyākula-dṛṣṭiḥ |
> pravisṛta-mada-kaṭa-|viluḍita-vadanaḥ
> śonita-digdh[o] | bhrānta-karāgro |
> hata-nara-śirasi-ja-|parigata-daśanaḥ |
> yena vinīto | rāja-gṛhe 'sau |
> mimathiṣur arir+iva | gaja-patir aśivas
> tasya maharṣeḥ | śāsana[m a]gry[aṃ] |
> vina(yatu) mama mati(m | iha) mati-manasaḥ || 9 ||

[13] *krauñcapadā bhmau sbhau nau nau ga bhūtendriyavasvṛṣayaḥ.*

[14] On the expeditions, see Fellner 2007.

His eyes were confused and rolled with rage, his face was besmirched by musth-secretion that flowed down from the temples, he was blood-smeared, the tip of his trunk swayed unpredictably, his tusks were garlanded by the hair of dead men—the one who tamed that baleful lord of elephants in Rājagr̥ha as he was seeking to crush (everything) like an enemy, let the prime teaching of that great sage, whose mind is thoughtful, tame my thinking here.

Regarding the style of the poem, Schlingloff wrote (1955:14):

Obwohl die chronologische Bestimmung unbekannter Werke allein nach stilistischen Gesichtspunkten sehr zweifelhaft ist, wird man doch mit einigem Vorbehalt sagen können, daß die Dichter unserer Hymnen von dem Dichterkreis um Aśvaghoṣa [2nd c. CE] und Mātr̥ceṭa [pre-4th c. CE] zeitlich nicht sehr entfernt sind.

Since there is no other evidence for the existence of this text, it is impossible to say anything certain about its provenance. It may have been composed in India as early as the 2nd c. CE, transmitted along the Silk Road to Central Asia, and preserved in Kizil. It is not out of the question, however, that a Central Asian Buddhist who studied Sanskrit grammar, meter, and early Buddhist *kāvya* poetry composed the text.[15] The birchbark fragments known as the Turfan *Chandoviciti* (Schlingloff 1958), which contain a collection of Sanskrit verses exemplifying various meters, demonstrate that Buddhists in East Turkestan were studying Sanskrit meter as early as the 4th/5th c. CE.[16] Given the find spot and the fact that the manuscript exhibits the occasional confusion of vowel length and voicing among stops that is typical of Sanskrit texts from the region, e.g. *aḍavakaṃ* for *āḍavakaṃ* 'Āḷavaka' (7c) and *pannakarājaṃ* for *pannagarājaṃ* 'king of snakes' (8c), it is reasonably likely that the copyist spoke Tocharian, which had neither phonological contrast.[17]

The location of the caesurae in the *Krauñcapadā* is clearly motivated. The caesura after the tenth syllable, which marks the palpable rhythmic transition from the two adonics to the extended stretch of light syllables, divides the pāda into balanced sixteen-mora half-lines. The other two caesurae divide the half-lines into eight-mora quarter-lines. The symmetry suggests the following hierarchical organization:

$$(((– ⏑ ⏑ – –)_{8\mu} (– ⏑ ⏑ – –)_{8\mu})_{16\mu} ((⏑ ⏑ ⏑ ⏑ ⏑ ⏑ ⏑ ⏑)_{8\mu} (⏑ ⏑ ⏑ ⏑ ⏑ ⏑ –)_{8\mu})_{16\mu})_{32\mu}$$

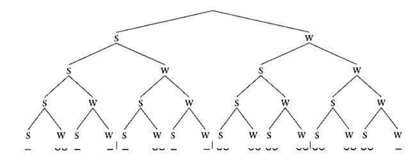
The identity of the first half-line with the *Rukmavatī* meter and the second with the

[15]On the question of the provenance of stotras attested only in Central Asian manuscripts, see Hartmann 1997:286 n. 9.

[16]For a recent discussion of the nature and dating of the fragments, see Chen 2013.

[17]Wolfgang Krause already suggested to Schlingloff that the confusion among stops could be attributed to a Tocharian scribe (Schlingloff 1955:17 n. 2), and he surely would have suggested the same for the vowels had he thought, as we do now, that Tocharian lacked phonemic vowel length.

Maṇiguṇanikara invites further analysis of the *Krauñcapadā*, along the lines of Deo 2007, as a syzygy of two trochaic tetrameters. The meter is binary and trochaic (i.e. rhythmically Strong-Weak) at every level: each position is bimoraic, each foot contains two such positions, each dipody (= quarter-line) contains two feet, etc.:



If the *Krauñcapadā*, like the 4×25, had caesurae after the 14th and 22nd syllables, they would divide the last two dipodies (quarter-lines) into their constituent feet (eighth-lines).

5 Boundaries in the *Preis der Bekehrungen Buddhas*

Since the metrical treatises do not necessarily reflect the poets' treatment of caesurae exactly,[18] and since the Tocharians may well have learned the *Krauñcapadā* from actual poetic texts such as the *Preis der Bekehrungen Buddhas* (*PdBB*), we should examine the word boundary distribution in that stotra. As noted above, a number of the caesurae coincide with compound boundaries. I have counted compound boundaries between inflectable stems as word boundaries. This conforms to poetic practice and to the prescriptions of the metricians.[19] Note that the use of Schlingloff's emendations and conjectures for the word-boundary distribution is less problematic than it may seem at first glance. For example, in 9b

śonitadigdh[o] | bhrānta-karāgro

the manuscript reads °*digdhoḥ*. Schlingloff entertains the emendation printed as well as a single compound *śonitadigdha-*|*bhrānta-karāgro*. With respect to boundaries, the

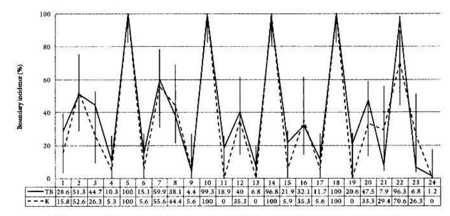
[18]Cf. Steiner 1997:244 for regular caesurae in *Anuṣṭubh Vipulā*s that are nowhere noted in the treatises.

[19]Steiner (1997:243–7) provides a clear, concise discussion of Halāyudha's definition of caesura (*yati*) in the *Yatyupadeśopaniṣad* as well as a study of what appear to be regular exceptions to that definition in Harṣadeva's poetic practice, e.g. caesura between prefix and stem, explicitly forbidden by Halāyudha. Since the exceptions appear to be less metrically felicitous and may require particular pragmatic motivation in some cases (245), I have not counted them here. I also consider the realization of caesurae before and after vowels fused across compound boundaries to be less felicitious, so I have treated *bhrāntakarāgro* as *bhrānta-karāgro*, as opposed to *bhrānta-karā-gro*, *bhrānta-kar-āgro*, or *bhrānta-kar-a-gro*. The same holds for *prasphuritauṣṭhaṃ* (spanning syllables 6–10 in 7a) and °*mukhāgnim* (8–10 in 8a).

two options are equivalent. In 9d, one may take issue with Schlingloff's conjecture of the akṣaras *miha* and the supposed compound *mati-manasaḥ* 'einsichtig':

vina(yatu) mama mati(m ¦ iha) mati-manasaḥ

In my view, the parsing of *matiCVCVmatimanasaḥ* as *mati-CVCVmati-manasaḥ* or *matiC VCVmati-manasaḥ* is extremely likely, and the more difficult choice between the printed text and, for example, *mati-CVCVm ati-manasaḥ* makes no difference for the tally. Figure 2 plots the boundary incidence in the TB 4×25 and the *Krauñcapadā*. As above, host-clitic junctures do not count as boundaries.[20]



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
—— TB	28.6	51.3	44.7	10.3	100	15.1	59.9	38.1	4.4	99.3	18.9	40	6.8	96.8	21.9	32.1	11.7	100	20.6	47.5	7.9	96.3	6.8	1.2
- - - K	15.8	52.6	26.3	5.3	100	5.6	55.6	44.4	5.6	100	0	35.3	0	100	5.9	35.3	5.6	100	0	33.3	29.4	70.6	26.3	0

Figure 2. Boundary incidence in the TB 4×25 and the *Krauñcapadā*.

Strikingly, the correlation between the two is virtually as strong as the correlation between the TB and TA data: Spearman's ρ = .86, p < .0001.[21] The most important fact reflected in the plot is the high boundary incidence after the 14th (100%) and 22nd (70.6%) syllables, which correspond to Stumpf's (minor) caesurae. Thus while the metrical treatises do not prescribe caesurae in those positions, the actual poetic practice of the *PdBB* provides the basis for all five Tocharian caesurae and points to borrowing.

The high boundary incidence after syllables 14 and 22 does not necessarily reflect caesurae in the *Krauñcapadā*. The peaks in the plot there could be "caesurals," by which I mean byproducts of the other caesurae, the rhythm required in that stretch of the meter, the shape of Sanskrit lexical items, and other aspects of the grammar. In order to address the question and by extension the accuracy of the treatises, we would require more poetry composed in *Krauñcapadā* as well as Sanskrit prose passages that

[20] In practice, these are *aham=iti* 6b, *imaṃ=hi* 6c, *prāpya=ca*, *bhiṣag=iva* 6d, *aham=iha* 7d, *(gha)na[m]=iva* 8a, *tarum=iva* 8b, *yo=hy* 8c, *arir=iva* 9c, °*pa(tir=iva)* 10b, *gaja=iva* 10c, and *nabhasi=ca* 10d.

[21] Running this on the number of boundaries (see the caveat above, n. 9) again yields similar values (ρ = .85, p < .0001).

happen to have comparable stretches of light syllables. The issue has no consequences for the borrowing scenario: if the Tocharians learned the *Krauñcapadā* from the *PdBB* and/or comparable texts, they had access to the surface form of the meter (boundary distribution), not to its grammar (caesurae).

6 Tune or meter names (*kenes*)

Tocharian metrical passages are preceded by a term in the locative or perlative singular, which is usually set off by double daṇḍas. For example, on the wooden tablet from the Kizil caves recently published by Ogihara (2015), || *apratitulyemne* || precedes TB verses in the 4×25 praising a local monastery. Sieg and Siegling (1921) referred to the terms as meter names. The majority are of Sanskrit origin, but so far, only one of the ca. 150 terms (B *harinaplutne*, A *harinaplutaṃ*) has been identified with a Sanskrit meter name (Malzahn 2013). Since Winter 1959, the prevalent opinion holds that they do not refer (only) to the meter, but (also) to an aspect of the performance of the poetry, perhaps the tune.[22] Winter's reasons for this were that (1) the same meter is often associated with a number of different terms and (2) occasionally the same term is associated with more than one meter. Furthermore, in archaic texts, the term is occasionally followed by *kenene*, the locative singular of TB *kene* (: A *kaṃ*), which may be cognate with Latin *canō* 'sing', Old Irish *canu*, the Hesychius gloss ἠικανός· ὁ ἀλεκτρυών ('dawn-singer', i.e. the cock), etc. and mean 'tune, melody' (Winter 1959, Watkins 1999). To borrow a TB example from Watkins' admirably clear discussion of the *kenes* (1999:602–4), THT 515b4 preserves *niṣkramaṃ kenene*, which Watkins translates "in *niṣkramant-* [Skt. 'departing'] melody" (603).

Several experts have recently been working on the *kenes* (Malzahn 2013, Peyrot forthcoming), and the results will no doubt elucidate the phenomenon. Here I wish to make one observation. The 4×25 is associated with at least three *kenes* that are common to both TB and TA: TB *apratitulyemne* (: A *apratitulyenaṃ*), *bahudantākne* (: A *bahudantākaṃ*), and *bahuprahārne* (: A *bahuprakāraṃ*), as well as three further *kenes* attested only in TA, *ārśi-lāñcinaṃ*, *watañi-lāntaṃ*, and *ṣeraśi-niṣkramāntaṃ*. I find it striking that the *kene* derived from Sanskrit *apratitulya-*, which apparently means 'not to be compared, incomparable' (cf. *SWTF* s.v.), scans – ⏑ ⏑ – × and thus fits the beginning of the *Krauñcapadā* pāda, as do many Sanskrit meter names including *Krauñcapadā* itself. (The beginning of a popular verse was used as a mnemonic and eventually as the name of the meter.) While the scansion of *apratitulya-* may be accidental, I cannot help but wonder whether a popular *Krauñcapadā* verse that began *apratituly*° was the source of the *kene*. To be sure, this is not the only source of *kenes*. For example, *ārśi-lāñcinaṃ* means either 'in the (tune) of Tocharian A kings' or 'in the Tocharian A (tune) of kings' (Watkins 1999, Peyrot forthcoming). Whether it is one of the sources should be easier to gauge with the results of the studies noted above.

[22] For a different view, see Widmer 2000:527 n. 20.

7 The borrowing

I would like to suggest the following borrowing scenario with all due caution. An erudite Tocharian Buddhist who studied Sanskrit grammar and meter and had a taste for Buddhist *kāvya* poetry adopted the *Krauñcapadā* for his or her Tocharian compositions.[23] Given the general popularity of buddhastotras in Central Asia, the fact that particular stotras enjoyed local popularity (Hartmann 1997:286–7), and the rarity of the *Krauñcapadā*, the *PdBB* may have been one of the source texts. While the 4×25 is used for buddhastotras, e.g. to translate and adapt Mātṛceta's *Varṇārhavarṇastotra* into TA,[24] the meter is by no means restricted to the genre, nor is it rare. I must assume that (1) the Sanskrit source texts belonged to multiple genres and/or (2) the genre-specificity of the meter was lost as it gained popularity in the Tocharian tradition.

The boundary incidence in the 4×25, specifically the greater violability of the minor caesurae and the apparent bridges after the 9th and 24th syllables, suggest that (s)he not only borrowed the caesurae but also carried over the constituency of the meter, which was perfectly transparent in the weight-regulating *Krauñcapadā*, with its moraically balanced half- and quarter-verses. The fact that the constituency continued to be transmitted is somewhat surprising, since it became opaque when syllable-weight regulation was given up.

$$(((-\smile\smile--)_{8\mu}\ (-\smile\smile--)_{8\mu})_{16\mu}\ ((\smile\smile\smile\smile|\smile\smile\smile\smile)_{8\mu}\ (\smile\smile\smile\smile|\smile\smile-)_{8\mu})_{16\mu})_{32\mu}$$
$$(((\sigma\sigma\sigma\sigma\sigma)_{5\sigma}\ (\sigma\sigma\sigma\sigma\sigma)_{5\sigma})_{10\sigma}\ ((\sigma\sigma\sigma\sigma|\sigma\sigma\sigma\sigma)_{8\sigma}\ (\sigma\sigma\sigma\sigma|\sigma\sigma\sigma)_{7\sigma})_{15\sigma})_{25\sigma}$$

It is possible that the manner of recitation of the Tocharian 4×25, which is presumably referred to by the *kenes*, facilitated the retention of the constituency.

The reason for giving up weight regulation should probably be sought in Tocharian phonology. While counterexamples exist,[25] Gordon (2006:207) cautiously observes that of the seventeen languages with weight-sensitive metrical traditions in his survey, sixteen have a phonemic distinction in vowel length, and all seventeen treat CVV(C) and CVC syllables as heavy in meter, as in Classical Sanskrit. Furthermore, stress tends to agree with the meter in treating those syllable types as heavy. In contrast to Sanskrit, neither Tocharian language has phonemic vowel length. The stress system of Tocharian A treats non-high vowels as heavy and high vowels as light (Nevins and Plaster 2008). Tocharian B stress is weight-insensitive, but stress assignment in

[23] This Tocharian may also have considered rare, long, ornate meters to be particularly well-suited for praising the Buddha (cf. Hahn 1987:55). With the exception of the *PdBB*, Hahn's examples are later stotras.

[24] Cf. Hartmann 1987 and Pinault 2008:281–91, both with further references. The latter, together with the following chapter (293–311), provides an insightful exemplification and discussion of issues of Tocharian translation and adaptation of Sanskrit buddhastotras.

[25] The counterexample in Gordon's study is Berber. Paul Kiparsky informs me that Ottoman Turkish, which did not have contrastive vowel length, borrowed the Persian/Urdu quantitative tradition.

certain morphological categories (e.g. class I subjunctives of the type ***tékäṃ-me*** 'will touch') and individual lexical items (e.g. ***pātär*** 'father') point to a similar prehistoric distinction between non-high and high vowels (Malzahn 2010:6–7, 219–20; Jasanoff 2015). I suggest that Tocharian phonology did not make the kinds of distinctions that facilitate the development, borrowing, or retention of quantitative meters.[26]

8 Concluding remarks

Accepting that the *Krauñcapadā* is the source of the 4×25, we can draw several conclusions. First, it speaks for the utility and accuracy of the quantitative corpus-linguistic methods developed for the analysis of Tocharian meter in Bross, Gunkel, and Ryan 2014 and 2015 and applied to the 4×25 here. Second, it shows that even rare Sanskrit meters were candidates for borrowing into Tocharian. Third, the similarity between the 4×25 and other Tocharian meters suggests that the puzzling colometries of Tocharian meter, i.e. the seemingly unmotivated combinations of even and uneven cola, may have arisen via borrowing and the loss of syllable weight regulation.[27] Regarding the last point, however, I wish to stress that it remains possible that an indigenous system with those characteristics was already in place when the Tocharians borrowed the *Krauñcapadā*.

Abbreviations

CEToM = *A Comprehensive Edition of Tocharian Manuscripts*. Accessed 2013–16. http://www.univie.ac.at/tocharian/

SWTF = Bechert, Heinz (ed.). 1994. *Sanskritwörterbuch der buddhistischen Texte aus den Turfanfunden*. Vol. 1: *Vokale*. Göttingen: Vandenhoeck & Ruprecht.

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[26] I say "facilitate" because Old Javanese ***kakawin*** (9–12 c. CE) shows that poets of a language that probably lacked phonemic vowel length could borrow Sanskrit syllabo-quantitative and mora-counting meters as well as the Sanskrit-type distinction between light and heavy syllables. It is not clear to me whether Old Javanese had a contrast between heavy and light syllables prior to the borrowing, and if so, whether it was different from the Sanskrit-type distinction. I am grateful to Andrew Ollett for pointing this out to me and to Arlo Griffiths for answering a number of questions about Old Javanese. For some basic information about the tradition and its relationship to Sanskrit, see Pollock 2006:387–9.

[27] Mordvin meter, if cognate with Kalevala meter (Kiparsky 2014), provides the closest parallel I am aware of.

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Rhetorical Questions and Negation in Ancient Indo-European Languages

OLAV HACKSTEIN

1 Nonrethorical and rhetorical questions

Rhetorical questions are traditionally regarded as phenomena belonging to literary rhetoric and falling outside the scope of grammar, rather than as linguistic phenomena. Most grammars lack a formal category "rhetorical question". This is because many languages use the same question format for rhetorical and nonrhetorical questions. In these cases rhetorical and nonrhetorical questions are only differentiated by their propositional content. In English, interrogative structures such as (1) *How could you X?* or (2) *Have you lost X?* can indiscriminately introduce nonrhetorical or rhetorical questions, e.g.

(1a) nonrhetorical
How could you fight the crisis?
(1b) rhetorical
How could you?!
(2a) nonrhetorical
Have you lost your wallet?
(2b) rhetorical
Have you lost your mind/marbles?!

Nevertheless there are languages that formally distinguish rhetorical from nonrhetorical questions. Thus for questions involving sentential negation, i.e. a negated proposition (¬ p), older (and modern) Indo-European languages frequently exhibit a contrast between two functionally discrete question types. In question type 1 (nonrhetorical), non-movement of the negation correlates with true, information-soliciting questions; in question type 2 (rhetorical), leftward sentence negation movement correlates with strong counterexpectationality of a negated proposition (¬ p). Questions of type 2 thus preempt an affirmative bias towards the core proposition (p), thereby canceling the solicitation of new information. In the following I will first

document both correlations for modern and ancient Indo-European languages (§2–6), then lay out the mechanism behind the form–function correlation (§7).

2 English and German

In English and German, the placement of the negation can distinguish between non-rhetorical and rhetorical questions. Thus in (3) and its (New High) German translation equivalent in (4) low negation (a) in a non-rhetorical information-soliciting question constrasts with raised negation (b) in a rhetorical question:

(3a) English, non-rhetorical, correlating with low negation
Why should you ***not*** *stand under a tree during a thunderstorm?*
(3b) English, rhetorical, correlating with raised negation
*Why should****n't*** *we take the shortcut, if there is one?*
(4a) German, non-rhetorical, correlating with low negation
Wieso sollte man sich bei Gewitter ***nicht*** *unter einen Baum stellen?*
(4b) German, rhetorical, correlating with raised negation
Wieso sollte man ***nicht*** *die Abkürzung nehmen, wenn es sie gibt?*

3 Latin

Latin formally differentiates inner negated polar questions and outer negated polar questions; on this subdvision cf. Ladd 1981 and Büring and Gunlogson 2000. Inner negated polar questions exhibit low negation, which encodes a nonrhetorical, information-soliciting question (5a). By contrast, outer negated polar questions tend to move the negation *nōn* to the left periphery to express counterexpectionality of the negated proposition (¬ p), thus yielding rhetorical questions like those in (5b). Cf. Kühner and Stegmann 1976:503 with further exemplification.

(5a) Latin, inner negated polar question, nonrhetorical
iis=ne *rebus* *manus* *adferre* ***non dubitasti***
this:ABL.PL.F=Q thing:ABL.PL.F hand:ACC.PL lay.on:PRS.INF NEG doubt:PRF.2SG
a *quibus* *etiam oculos* *cohibere* *te* *religionum*
from which.thing:ABL.PL even eye:ACC.PL divert.INF you:ACC.SG rite:GEN.PL
iura *cogebant?*
law:NOM.PL force:IMPF.3PL
"Did you not refrain from laying your hands on these things from which the religious rites forced you to divert even your eyes?" (Cic. *Verr.* 2.4.101)

(5b) Latin, outer negated polar question, rhetorical
non=ne *eum* *graviter* *tulisse* *arbitramini . . . ?* *Quod enim . . .*
NEG=Q he:ACC seriously take:PRF.INF think:PRS.2PL.MP . . . ? For indeed . . .
"You surely don't think he regretted . . . , do you? For . . . " (Cic. *Verr.* 2.5.170)

***non** est iudicatus hostis Antonius?*
NEG AUX:PRS.3SG judge:PRF.PTCP.MP enemy:NOM Antonius:NOM
"Hasn't Antonius been declared an enemy?" (Cic. *Phil.* 7.13)
***non** manum abstines, mastigia?*
NEG hand:ACC take.off:PRS.2SG whip:VOC
"Won't you take your hand off, you scoundrel?" = "Hands off!" (Ter. *Ad.* 781)

The same form–function dichotomy (low negation ~ nonrhetorical; high negation ~ rhetorical) recurs with negated causal content questions, expressed with *why*, *how*, and *what*. These exhibit low negation when placed under information focus. When however the speaker seeks to mark the negation of the proposition as counterexpectational, the negation is raised to an immediately post-interrogative position. An example of the contextual contrast of outer and inner negated *why* questions is found in a letter of Cicero (6a–b). They contrast a dependent nonillocutional low-negation question (6a), which is purely factual, with an illocutional affirmative-bias question (6b), which is counterexpectational and thus exhibits high negation:

(6a) Latin, low-negation, nonrhetorical, information-soliciting question
*Si quis requirit **cur** Romae **non** sim: quia*
if PRON.INDEF ask:PRS.3SG why Rome:LOC NEG be:PRS.SBJ.3SG because
discessus est.
vacation be:PRS.1SG
"If somebody asks why I am not at Rome: (it's) because it's a vacation."

(6b) Latin, high-negation, rhetorical, affirmative-bias question
***cur non** sim in iis meis praediolis*
why NEG be:PRS.SBJ.1SG in these:ABL.PL my:ABL.PL estate:ABL.PL
quae sunt huius temporis:
which:NOM.PL be:PRS.3PL this:GEN.SG time:GEN.SG
"Why should I not stay on those estates of mine that are most appropriate for the season:
quia frequentiam illam non facile ferrem.
because multitude:ACC that:ACC NEG easily bear:IMPF.SBJ.1SG
(it is) because I would hardly bear that throng." (Cic. *Att.* 12.40.3)

The juxtaposition of causal interrogative and counterexpectational high negation frequently led to a formal and functional fusion (chunking) of interrogative adverb and negation. Examples are, inter alia, (Old) Latin *quid=ni* (Lewis and Short 1879:1516 s.v. *quis* II B 3: *quidni* "in rhet. questions," Menge 1953:330 §493), and *qui=n*, cf. (7). (For a collection of attestations, see Lindsay 1907:108–11, Fleck 2008:82–9.)

(7) ***qui=n** ego hoc rogem, quod nesciam?*
how=NEG I:NOM this:ACC ask:PRS.SBJV.1SG REL:ACC not.know.PRS.SBJV.1SG
"Why shouldn't I ask this, given that I don't know it?" (Pl. *Mil.* 426)

4 Sanskrit

Vedic Sanskrit also exemplifies the negative raising in rhetorical questions. To take an example (8), RV 10.146 contrasts a nonrhetorical low-negation question, which inquires about the suprising fact that "the Lady of the Wilderness herself doesn't inquire for a village or settlement" (Jamison and Brereton 2014:1617), with a rhetorical, and consequently high-negation, polar question "Does fear **not** find you at all?":

(8a) ***kathā́** grā́maṃ **ná** pr̥chasi?*
how village:ACC NEG ask:PRS.2SG
"How is that you don't ask for the village?"

(8b) ***ná** tvā bhī́r iva vindatī3m̐?*
NEG you:ACC fear:NOM almost find:PRS.3SG
"Does fear not find you at all?" (RV 10.146.1cd; Jamison and Brereton 2014:1618)

In Vedic, the correlation of high negation *why not* questions and non-information-soliciting, affirmative answer bias can be exemplified by the following example (8c). The passage describes and praises Indra's various violent deeds (ibid.), which are assumed to be well-known to the audience:

(8c) *ákrandayo nadyò róruvad vánā.*
make.roar:IMPF.2SG river:ACC.PL roar:INT.PTCP.NOM.SG wood.INS
"'You made the rivers roar, yourself constantly bellowing through the woods."

and culminates in an interrogative-exclamative clause:

(8d) ***kathā́ ná** kṣoṇī́r bhiyásā sám ārata?*
how NEG war.cry:NOM.PL fear:INS together clash:AOR.3PL.MP
"How have the war cries [/Heaven and Earth] not clashed together in fear?" (RV 1.54.1cd; Jamison and Brereton 2014:169)

whose content may be paraphrased as "Everybody agrees that in light of Indra's might the war cries [/Heaven and Earth] would have clashed together in fear."

5 Hittite

Sommer (1932:54 n.4) observed for Hittite the tendency to raise the negation ***natta*** into sentence-initial position in rhetorical questions. Hoffner (1986:89–90) as well as Hoffner and Melchert (2008:342–3) provided an extended exemplification as well as counterexamples. These latter however do not invalidate the tendency under discussion, but merely confirm that we are dealing with a tendency. As will emerge below in §7, raising the negation in interrogatives is driven inter alia by the pragmatic tagging of the negation as counterexpectational. Note this does not preclude there being other means of marking interrogative negation as counterexpectational. See (9) below for a typical contrast between nonrhetorical interrogative with low pre-verbal negation (9a) and rhetorical interrogative with sentence-initial negation (9b):

(9a) Hittite, low-negation, nonrhetorical question
nu= war= an kuit ḫanda ***natta*** *wemiyanzi*
PTCL=QUOT=him INTER:ACC POSTP NEG find:PRS.3PL
"(He said,) 'Why do they not find him?'" (VBoT 58 i 23; Hoffner 1986:91)

(9b) Hittite, high-negation, rhetorical question
natta=*šamaš* LÚ.MEŠDUGUD *tuppi ḫazzian ḫarzi*
NEG= you:2PL dignitary:DAT.PL tablet:ACC inscribe:PTCP.ACC AUX:PRS.3SG
"Has (my father) not inscribed a tablet for you dignitaries?"
(KBo 22.1 obv. 23; Hoffner 1986:90)

6 Tocharian

In Tocharian low negation correlates with nonrhetorical questions. An example of a low-negation nonrhetorical question occurs in the the third act of the Maitreyasamiti-Nāṭaka, when the Buddha's stepmother, Mahāprājapatī Gautamī, wants hand over to the Buddha a golden, handwoven cotton garment as a present, but he rejects it, asking his mother to donate the garment to the Buddhist community, the Saṅgha, instead. The Buddha's rejection of the garment prompts Mahāprajāpatī to inquire about the reason. Mahāprajāpatī's question is therefore nonrhetorical and shows low negation:

(10a) Tocharian, low-negation, nonrhetorical question
mänt *nu täṣ ptāñkät käṣṣi* ***mā*** *emtsitär= ñi?*
why PTCL it buddha:NOM teacher:NOM NEG seize:OPT.3SG.MP=me
"Why would the Buddha-god the teacher not be prepared to accept it from me?" (Toch. A, AYQ 25 [III.6] b8; Ji, Winter and Pinault 1998:168–9)

(10b) Tocharian, high-negation, rhetorical question

Tocharian A
sukyo yomnāṣ ksalune, ***mänt mā*** *käckäl*
joy:INS attain:SBJ.3SG extinction:OBL why NEG rejoice.GER.NOM
eṣäntāp?
give:PRS.PTCP.GEN.SG
"If he happily reaches extinction, **why** shouldn't a giver rejoice?"
(AYQ 29 [I.2] a5; Ji, Winter and Pinault 1998:28–9)
(pä)[l]skā: ***kuyal mā*** *näṣ śol raryuräṣ ksaluneyaṃ*
think:PRT.1SG why NEG I:NOM life.OBL give.up:ABS nirvāṇa:LOC
kälkim?
go.OPT.1SG
"[I] thought: why shouldn't I, having given up my life, go into *nirvāṇa*?"
(AYQ 36 [N.3] b1 = A 295 a5f.)

Tocharian B
ka mā *weścer krent [reki]?*
why NEG say:PRS.2PL good:OBL word:OBL
"Why don't you say the good word?" (B 20 b6)

7 Conclusion

The contrast between low negation interrogatives in nonrhetorical function and high negation interrogatives in rhetorical function, documented in §§2–6, conforms to a crosslinguistic pattern. How are we to account for this form–function relationship? The mechanism behind it is that raising the negation to a higher focus position immediately after the interrogative, thereby placing it under interrogative focus, is a means of marking the negation as counterexpectational. Counterexpectationality in turn amounts to a corroboration/affirmation of the core proposition and therefore cancels the question's information-soliciting function. The correlation of rhetorical question with raised negation conforms to an optional syntactic-pragmatic mechanism.

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The Pahlavi and Sanskrit Versions of the Gāthās: What Can They Teach Us?

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In the course of one's training as a graduate student one may, if one is lucky, enjoy a wide range of positive "course" experiences, for a variety of reasons: the course may be particularly stimulating in the intellectual domain, it may be taught by a singularly engaging instructor, or, for example, it may benefit from a satisfying sense of community amongst its participants. Professor Richard N. Frye's "Middle Iranian" courses at Harvard in the 1980s had the unique property of displaying all of these properties (and some others which space, and propriety, does not allow me to go into in any detail on this august occasion). While Stephanie was already an established scholar at this point, she was a fully involved participant in the course, and it is in some sense in commemoration of this shared, and delightful, experience that I undertake to honor her on this occasion with a modest Iranian paper.

Anyone who has had occasion to familiarize themselves with the scholarship regarding the Pahlavi translations of the Avesta will know that these translations are widely held to differ considerably in quality, depending on which parts of the Avesta are being translated (for explicit and lucid discussion, see Cantera 2004). The Pahlavi translation of the Videvdat, e.g., is certainly perceived as far more correct and useful than that of the portion of the Yasnas which contains the Gāthās. Indeed, I think it is safe to say that the Pahlavi translation of the Gāthās has been broadly held to be a relatively mechanical, word-for-word gloss, presumed in fact to be the conversion of an interlinear rendering (with earlier marginalia eventually inserted as "comments"). This is clearly expressed by Tavadia (1956:40), who reflects what I will call the "traditional" conception:

> Für die Pahlavī-Version, rein als Übersetzung gesehen, gilt noch das oft zitierte Urteil HÜBSCHMANNS: „Die Ausbeute wird eine verschiedene sein: reich für den Vendidād, befriedigend für den jüngeren Yasna, aber dürftig für die Gāthās." ... Hier war die Sachkenntnis nicht so gut. Außerdem war die Sprachform, namentlich die der Gāthās, erheblich schwieriger. Schon die verwickelte, dichterische Wortordnung verhindert eine richtige Wiedergabe bei einer rein mechanischen Wort-für-Wort Übersetzung, wie sie das System verlangte.

Given the striking differences in word order between a text such as the Gāthās and the familiar prose which represents virtually all of our Pahlavi corpus, together with the differences in nominal morphology between the two languages (Pahlavi has virtually no case-marking), it comes as no surprise that such a word-for-word rendering would be as unintelligible in Pahlavi as it would be were we to attempt a word-for-word translation into English. Since the Sanskrit translator, Neriosang, explicitly asserts that he is translating the ***Pahlavi***, rather than the Avestan, and since, as we have just noted, the Pahlavi of the Gathas cannot be expected to be a model of coherence, modern translators of the Gāthās have generally not attended the Sanskrit translation, either.[1]

While it cannot be dated with any great confidence, it is safe to say that the Pahlavi translation of the Gāthās postdates their composition by at least 1,000 years, and that many hundreds of years stand between the Pahlavi translation and the Sanskrit rendering by Neriosang in the late 11th century CE. Thus even perfectly coherent translation into either Pahlavi or Sanskrit would not guarantee that the coherency achieved would have provided us with any direct sense for the meaning Zarathustra was attempting to convey in composing the texts.

I would like to argue in this modest contribution to the discussion that abject pessimism may be a bit premature. While it is true that a rather long stretch of time separates Zarathustra from his Pahlavi translator(s), and even more from Neriosang, there are two other considerations which seem relevant: first, in spite of temporal distance, both the Pahlavi translator(s) and Neriosang are still nearly a thousand years ***closer*** to Zarathustra than those of us struggling with these questions now; and, second, that those translators can be quite safely assumed to have been much more deeply immersed in the relevant religious traditions—traditions which presumably can be traced back to the prophet and his disciples themselves—than are most contemporary Indo-Europeanists struggling with the interpretation of the Gāthās.

It is of course well known from the contact most Indo-Europeanists have with the commentary tradition surrounding the Vedic texts that being part of such a religious tradition can be both a boon and a hindrance to the interpretation of ancient texts. Geldner's translation of the Rigveda, for example, is often taken to task for over-dependence on Sayana's commentary, an issue now remedied for us by the excellent translation of Jamison and Brereton (2014). Whitney, in his comments on his translation of the Śaunaka Atharvaveda, at times exploits information provided by the later commentaries, and at times points out just how misbegotten those commentaries can be (certainly rivaling in their absurdity anything found in the Pahlavi translations of the Gāthās). It would seem that the same ***judicious*** use of the indigenous tradition may be appropriate in both the Avestan and Vedic cases: they should neither be trusted ***a priori***, nor rejected out of hand.

[1] Humbach (2003) notes that Neriosang may occasionally take a look at the Avestan original, but no systematic study of this phenomenon exists, to my knowledge.

Given recent work on the Pahlavi translation of the Vīdēvdād by Skjærvø and Cantera, and of recent work on the transmission history of the Avesta itself, it might be the right moment to reconsider the matter of the Pahlavi (and Sanskrit) translations of the Gāthās. Indeed, my general sense, as one working at the fringes of contemporary approaches to Old and Middle Iranian, is that most Iranists today would not ascribe to the "traditional" view I outlined earlier, but it is hard to find concrete arguments for precisely how and why they diverge from this view. For example, in a recent translation of the Gāthās, Humbach and Faiss (2010:13) say:

> The Pahlavi translation, which is supplied with numerous Pahlavi glosses, was produced in the late medieval period. As for the Gāthās, the priestly tradition seems to have already lost reliable information on their details at a much earlier time, in consequence of which their Pahlavi translation as a whole shows a deplorable lack of acquaintance with the fundamental prerequisites of a scholarly approach and it is seldom really useful... A literal version of the Pahlavi translation of the Gāthās and the other ritual texts into an extremely non-classical Sanskrit was produced by the famous medieval Parsi scholar Neriosangh supported by his less qualified nephew Ormazdyar. Taking into account the incompetence of the Pahlavi translators, one has to even expect less from the Sanskrit version of the Gāthās, but occasionally also this is highly informative.

In spite of the encouraging remark at the end of this quote, the actual example given can hardly be deemed as evidence in support of such an assessment. The authors go on to say: "Thus our rendering of the name of Ahura Mazdā (Phl. Ohrmazd) as 'Wise Lord' is based on Neriosangh's ***mahājñānin svāmin*** 'Lord of Great Knowledge'." But one hardly needs Neriosang to support such a translation: the etymologies of both ***ahura-*** and ***mazdā-*** would already lead one to the same interpretation.

And we can see in this a methodological problem: when the Pahlavi and/or Sanskrit translations agree with an interpretation we already believe in for independent reasons, it is clearly a little disingenuous to label them "highly informative." But to label them that way when we ***disagree*** with them would obviously be rather odd. If we are going to simply use the translations opportunistically, to support us when they happen to agree and write them off as worthless when they do not, there is really no point in mentioning them at all.

Space is lacking here for me to provide any serious, comprehensive assessment of the difficult matters these texts give rise to. What I would like to do is rather to present some preliminary evidence, leveraging some arguments tied to more general interests of mine, which seem to point to very specific ways in which the data support a more complex conception of the relationship of the Pahlavi and Sanskrit versions of the Gāthās to their Avestan original than the "traditional" one with which I began.

As Insler (1975) noted in the introduction to his translation of the Gāthās, a key

issue confronting anyone approaching these texts is an appreciation for their complex *syntax*. Much of the criticism of the Pahlavi translation of the Gāthās has been centered on errors of lexical interpretation: the Pahlavi translator thought, mistakenly, that word X meant Y, when it clearly (from our contemporary perspective, informed by a much deeper understanding of the Indo-Iranian lexicon) meant Z. But, while individual words encode a great deal of information regarding the meaning of a text, there is also a great deal of information to be extracted from the *relationships* between words—i.e., from the syntax of the clauses in the text. Indeed, Insler saw that many fundamental difficulties confronting our attempts to interpret the Gāthās were not of the lexical type (where no one would doubt we have a better understanding than the Pahlavi translators of the Gāthās), but of precisely how these lexical items were to be construed relative to one another. In addition, much of this "relational" information is encoded not in the so-called "open class" lexical items ("good", "mouth", "truth"), but in high-frequency functional elements, such as coordinators, pronominals, sentence adverbials, and particles. Given my own interests in Indo-Iranian (and Indo-European) syntax, it is to these aspects of the Pahlavi (and, eventually, Sanskrit) translation that I would like to direct my attention.

There are several matters in this domain that are of immediate interest in the Pahlavi translation. The first concerns the widespread traditional view that this translation arose from an interlinear gloss, and is thus faithfully "word-for-word": in fact, the Pahlavi translation deviates, in its word order, from that of the Avestan original in many individual instances, particularly when it comes to "functional" items. Let us take as our first example the Pahlavi translators' rendering of the Old Avestan particle *zī* (the cognate of similarly-functioning Vedic *hí*). This particle is enclitic, and thus, in spite of its clause-level subordinating semantics, it does not occur in clause-initial position (the normal position for non-enclitic subordinators in these languages). Its Pahlavi translation in the Gāthās is consistently *cē* 'because, since'. Pahlavi *cē* is not an enclitic, and thus normally appears clause-initially, but if one were constructing an interlinear gloss this would play no role: one would have to write *cē* underneath *zī*, the whole point of an interlinear gloss being to align meaning-bearing elements. The subordinator *zī* appears just over a dozen times in the Gāthās, most often near the beginning of a clause which was introduced by a deictic pronominal. The Avestan order of such sequences is, of course, invariably *pronominal* + *zī*, in keeping with the clitic status of the latter. The Pahlavi order is, by contrast, invariably *cē* + *pronominal* (generally *ān* or the weaker deictic *ōy*):[2] Av. *huuō.zī* ... = Phl. *cē ān* ... (Y.44.2d, Y.46.6c, Y.51.8c), Av. *hā zī* ... = Phl. *cē ān* ... (Y.48.2d, Y.48.6a), Av. *taṯ zī* ... = Phl. *cē ān* ... (Y.34.14a), Av. *tə̄m zī* ... = Phl. *cē ōy* ... (Y.53.4a), and Av. *tōi zī* ... = Phl. *cē awēšān* ... (Y.48.12d). The Avestan sentence-introductory particle *aṯ* is normally rendered by the Pahlavi term *ēdōn*, but at Y.51.8a the sequence *aṯ zī* ... is translated as Phl. *cē ēdōn* ... Similary, at Y.45.8b Av. *nū zīṯ* ... with the sentence adverbial *nū* 'now' and the enclitic pronominal *-īṯ* is given in Pahlavi as *cē nūn ēn* ... This "displacement" of *cē* is not limited to cases in which it follows a functional element, as can be seen from the Pahlavi version of the start of Y.43.10d *parštə̄m zī θβā* ..., which is *cē pursišn tō* ...

[2]The Pahlavi translation is cited after Malanda and Ichaporia's (2011) rendering of Dhabhar's original text.

I would be the first to admit that this fact bears not at all upon our interpretation of these Gāthic passages, but it does tell us something important about the Pahlavi translation of the Gāthās. Whenever this Pahlavi text was given its attested form, these words were arranged in keeping with the demands of Pahlavi grammar, regardless of the divergent order of the Avestan. If they started out as interlinear glosses, the process of constructing the Pahlavi text involved rearranging that word order based on the syntactic requirements of Pahlavi.

I start with this example because it also tells us something interesting about the Sanskrit translation of the Gāthās. Avestan *zī*/Pahlavi *cē* in the above-cited passages is translated sometimes as Sanskrit *yataḥ*, and rather less frequently as Sanskrit *yat*. Regardless of which Sanskrit word is used in the translation, however, there is an interesting split in where the translating word is placed in the linear sequence. In Y.48ff., the Sanskrit order matches that of the Pahlavi translation (and thus diverges from the Avestan original): thus for Phl. *cē ān* at Y.48.2d, Y.48.6a, and Y.51.8c the Sanskrit translation reads *yat tat*, *yat idam*, and *yat ayaṃ*, respectively.[3] For Y.48.12d's *cē awēšān* we have Sanskrit *yataḥ teṣāṃ*. Finally, for Phl. *cē ēdōn* in Y.51.8a the Sanskrit translation is *yat evam*. There is absolutely nothing surprising about these facts on the traditional view: the Sanskrit translation is based, as Neriosang himself tells us, on the Pahlavi, rather than on the Avestan, so it is the Pahlavi order that we would expect to see in the Sanskrit rendering. What is completely unexpected, however, is that in the Gāthās which come before Y.48, the placement of the Sanskrit translation of Avestan *zī* aligns not with Pahlavi *cē*, but with the Avestan original: thus for Av. *huuō.zī* in Y.44.2d and Y.46.6c we have Sanskrit *sa yataḥ* (contrast the translations of the very same Avestan and Pahlavi sequences in Y.51.8c cited above). For Av. *taṯ zī* in Y.34.14a we have Sanskrit *sa yataḥ*. For Y.45.8b Av. *nū zīṯ* we gave Skt. *nanu yataḥ idaṃ*. Finally, for Av. *parštə̄m zī θβā* the Sanskrit translation is *praśno yatas te*.

These data indicate that, at least for the Gāthic passages before the start of Y.48, we are dealing with a Sanskrit text which was constructed with explicit reference to the Avestan original, regardless of the order observed in the Pahlavi translation. It is of considerable interest, given these admittedly very low-level observations, to quote from Bharucha's edition of the Sanskrit Yasna, where he notes in the preface (1910:i):

> Even in the Sanskrit translations of Hâs forty eight to fifty seven I have found a few examples of gross ignorance of the translator and

[3]The astute reader will notice that sandhi is not Neriosang's (or perhaps in this case Ohrmazdyar's?) strong suit.

> consequently I entertain misgivings as to their being the genuine translations of Nariyosang himself. One example will suffice . . . [lexical example cited—MRH] We cannot impute such gross ignorance of Avesta and Pâhlavi to Mobed Neriyosang Dhaval. Hence I conclude that the great Mobed Nariyosang wrote up to the end of the Hâ forty seven and afterwards some less competent person or persons have ventured to continue and finish the work begun by him. I am, however, not quite confident in asserting this surmise and leave the point to future investigations.

It can scarcely be chance that Bharucha's intuitions and the facts regarding *zī* have hit upon the same point of division in authorship for the Sanskrit translation.

Having established then that "word-for-word" will not do as a characterization of the Pahlavi translation technique, we can ask whether there are phenomena which actually impact interpretation rather more directly than the *zī* example does in which there is minor deviation from the Avestan word order in our Pahlavi text. Let me again, for reasons of space, take a relatively modest, syntactic phenomenon as an example. One of the central issues confronting the interpreter of the Gāthās is how precisely to construe various genitive, instrumental, and other oblique, potentially adnominal NPs—in particular the question of which *nomina* these elements might be *ad*. In the case of the relatively configurational texts which have been examined for the study of the Pahlavi translation (e.g., the Hōm Yašt and the Vīdēvdād), this issues scarcely arises, but it is a core aspect of Gāthic exegesis.

Earlier researchers have established just which Pahlavi prepositions are generally used to render which Avestan cases (for a summary, see Cantera 2004:270), but I would like to address a rather different issue: not *which* preposition, but *where* the preposition is placed in the Pahlavi translation. Once again, in an interlinear translation (from which our text is sometimes alleged to have arisen), or indeed from any word-for-word translation, we would expect the preposition to be placed directly before the case-marked element. But this hardly captures the richness of the Pahlavi rendering, as examples such as the following show:

Y.31.12b	. . .		*ahiiā*	*zərədācā*	*manaŋhācā*
	. . .	*ō ān*	*ī ōy*	*dil*	*ud menišn*

"in accord with both his heart and his mind" (Insler 1975:39)

There are several matters of interest here. First, the case-marker *ō* introduces the NP, followed by the demonstrative *ān*. One of the regular functions of the less deictic, more article-like demonstratives in Middle Persian is to provide support for preposed, ezafe-introduced modifiers (like the *ī ōy* "of him" in the passage just cited), see Durkin-Meisterernst 2014:286, with lit. The head noun for this article is, of course, *dil*. Thus, without the possessive (which translates Avestan *ahiiā*), the noun phrase would have been *ō ān dil*, and an interlinear gloss would align the case marker and demonstra-

tive (which are not expressed by separate words in the Avestan) with *dil*. But, in keeping with the requirements of Pahlavi grammar, these grammatical elements instead are placed at the start of the NP as a whole, thus breaking the "word-for-word" pattern often attributed to the Pahlavi translation. Such examples are legion in the Pahlavi translation of the Gāthās. It is worth noting that no preposition is required to find cases of this type of displacement: the demonstrative alone will also preceed any prenominal modifiers:

Y.34.4c	. . .	*at̰*		*aṣ̌āunē*	*vahištəm manō*
		ud ēdōn	*ān*	*ī ahlaw*	*pahlom-menišnīh*

"(and) that best thinking which is of the pious (man)"

The value of this practice is fairly straightforward: it tells us where the left edge of the NP in question is, and thus what other elements are to be construed as part of the same syntactic constituent. Thus, e.g., in Y.28.7b Insler translates "Give thou, o piety, power to Vishtaspa and to me." Part of the Avestan of that line reads *vīštāspāi* *iṣ̌əm* ("power to Vishtaspa", in Insler's version), which is translated into Pahlavi as *ān ī az vištāsp xwāhišn* "that acquiring which is from Vishtaspa." The placement of *ān*, at some remove from its head noun, tells us that the Pahlavi commentator is construing *vīštāspāi* not as an independent argument of the verb, but as an NP-internal modifier.

Second-position clitics are often highly ambiguous as to how they should be construed in Avestan (and Vedic Sanskrit): do they represent arguments of the verb or have they escaped some NP? In many examples in the Pahlavi translation such a determination can be made. In Y.28.7c *yā vō mąθrā* . . . is rendered *ka ēd ī ašmā mānsar* . . . "when this mantra of yours . . ." where the placement of the demonstrative *ēd* is an unambiguous indicator that the Pahlavi translator has construed *vō* as adnominal. Such examples are very frequent (as, of course, are those where the clitic is *not* so translated, and thus *not* to be construed as adnominal). Sometimes other violations of "word-for-word" translation follow from this technique:

Y. 29.8a . . . *nō aēuuō sāsnā̊* . . .
ō ān ī amā hammōxtišn ēd ēwag
"for this our instruction" (Pahlavi)

The translation of Av. *aēuuō* (as *ēd ēwag*) is postponed until after the NP is completed.

It is important to note—a matter to which I will return below—that the question is not whether these are *the right* translations or not: such matters must await an assessment of just what type of document the Pahlavi "translation" is trying to be. That such syntactic phenomena tell us something valuable about *that* question, by telling us about exactly what the Pahlavi translators were trying to say about the text, is, I hope, clear.

Returning to the general question of deviations from "word-for-word" translation,

there are also, interestingly, cases in which such a translation is almost precluded. Space will not permit me a full discussion of these cases here, but some preliminary observations can be made. The normal Pahlavi translations of ***ahura- mazdā-*** 'the Wise Lord' (or 'Lord Wisdom') is the single word ***Ohrmazd***. Similarly, ***vohu- manah-*** 'Good Thinking' is generally translated as *Wahman* in the Pahlavi of the Avesta. Often, this method of translation gives rise to no problems, as in Y.32.2a (glosses suppressed):

Av.	*aēibiiō*	***mazdå ahurō***	*sārəmnō*	***vohū manaŋhā***
Phl.	*ō awēšān* [. . .]	***ohrmazd***	*pad sālārīh*	***ī wahman*** [. . .]
Av.	*tebhyaḥ*	*mahājñānī svāmī*	*svāmitāyāṃ*	*uttamasya manasaḥ* [. . .]

"to them (did) the Wise Lord (reply) as befits His rulership . . . " (Insler)

Indeed, no problems arise for any of the best-studied Pahlavi translations (the Hōm Yašt, treated in Josephson 1997, and the Vīdēvdād, which is the primary focus of Cantera 2004) due to the less "non-configurational" nature of Young Avestan. Given the syntax of Old Avestan, however, there are many clauses in which ***ahura-*** does not occur adjacent to ***mazdā-***, or ***vohu-*** sits at some distance from ***manah-***, even though they are to be construed together. This presents an obvious challenge to the Pahlavi translator (the Sanskrit translator before Y.48, by the way, simply follows the Avestan, translating both terms). One can imagine various mechanical solutions: one could translate the first term in linear sequence only; one could translate only the second term; or, one could translate both words with the same Pahlavi label. That none of these solutions were implemented across the board can be seen from the following example:

Y43.7ab	*spəṇtəm*	*at̰*	*θβā*	***mazdā***	*mə̄ŋghī*	***ahurā***
	abzōnīg-im	*ēdōn*	*tō*		*menīd hē*	*ohrmazd*

hiiat̰	*mā*	***vohū***	*pairī.jasat̰*	***manaŋhā***
ka	*ō man*	*wahman*	*bē-mad*	

"And I have already realized Thee to be virtuous, Wise Lord, when he attended me with good thinking . . . " (Insler 1975:63)

These two lines of the Gāthās show a common syntactic pattern whereby an NP finds itself separated by an otherwise clause-final verb: ***mazdā ahurā*** 'the Wise Lord' being broken up by ***mə̄ŋghī***, and ***vohū manaŋhā*** 'with Good Thinking' being interrupted by ***pairī.jasat̰*** 'he attended'. In the first line, the Pahlavi translator has translated only the ***second*** element of the discontinuous NP, in the next line, only the ***first***. Is there a reason for this seemingly inconsistent behavior?

Note that the Pahlavi clauses, although aligned with the Avestan, are not structurally identical to it. The first clause, for example, is construed such that the verb

agrees with 'you' (***hē*** is 2nd person singular) and the (Avestan) subject, pro-dropped 'I', is expressed by the Pahlavi clitic ***-im***. In light of Cantera's clear demonstration of the rather precise knowledge of Avestan verbal agreement morphology on the part of the Pahlavi translators (though he was not focussed on the Gāthās as such), this divergence is not to be attributed to grammatical incompetence. Its explanation is straightforward: in the past tense Pahlavi is ergative, with the "absolutive" argument (in this case the patient, ***you***) controlling agreement.

In the second clause we would expect an overt preposition, in this case doubtless ***pad***, to encode the instrumental function of "Good Thinking" we see in the Avestan, but there is no such preposition. The Pahlavi appears to say, rather than "when he attended me with Good Thinking," something more along the lines of "when Good Thinking came to me." I say "reconstrual" rather than "misconstrual" intentionally: a detailed investigation of the translation of the instrumental in the Pahlavi Gāthās would be needed before we could determine whether the translator knew what the Avestan meant, and simply was not concerned about whether "Good Thinking" came to Zarathustra with the "Wise Lord" or on its own (in either case Good Thinking came to Zarathustra), or whether the instrumental was simply opaque to the translator. Note that the thrust of Cantera's support for detailed grammatical knowledge on the part of the Pahlavi translators concerns verbal morphology, much of which survives in our earliest Middle Iranian records, which is not the case with most case morphology.

If we assume that this reconstrual has taken place, then what might we say about the differences between the placement of ***Ohrmazd*** and ***Wahman*** in the Pahlavi translations above? Was there some motivation to postpone the translation of ***mazdā*** until after the verb? Before I answer this question, let me demonstrate that in general it appears to be the syntax of Pahlavi that is playing a deciding role in which term gets translated, focussing on some clear *Wahman* cases. We find the translation taking place in the ***vohu-*** position in the first of these examples, in the ***manah-***position in the second:

Y.34.11b		***vaŋhə̄uš***	*xṣ̌aθrā*	***manaŋhō***
	pad ān	*ī wahman*	*xwadāyīh*	

"together with the rule of good thinking" (Insler)

Y.45.9a	. . . ***vohū***	*mat̰*	***manaŋhā*** . . .
		pad abāgīh	*ī wahman*

"with good thinking" (Insler)/ "in the company of Wahman" (Phl)

The translation of Av. ***mat̰*** in the latter example, either as here ('in the company') or as at other places in the Gāthās (***abag*** 'with') does not permit, in the grammar of Pahlavi, part of the complement of that element to precede it. For this reason,

manaŋha has been selected as the site for insertion of *Wahman*. In the former example, the standard practice of inserting *ān* to support preposed, ezafe-introduced modifiers has been exploited, and thus Wahman aligns with *vaŋhə̄uš*. Space does not permit systematic presentation of the data here, but it is strongly supportive of this analysis.

What would that mean for the Y.43.7ab passages above? The crucial difference between the two passages, as near as I can tell, is that the former translates a *vocative*, the latter an instrumental. Since Pahlavi was generally verb-final, and since vocatives are generally set off from their surroundings by intonational breaks, translating *mazdā* in Y.43.7a would have led to a Pahlavi sentence with the intonational structure *abzōnīg-im ēdōn tō, Ohrmazd, menīd hē* (where commas introduce the relevant breaks), in contrast to the order used, which would be phrased as *abzōnīg-im ēdōn tō menīd hē, Ohrmazd.* I think that Pahlavi preferred not to isolate the phrase-final verb with an immediately preceding intonation break,[4] whereas a final vocative "tag" was quite acceptable—I believe this is true of Avestan as well, but the matter requires further investigation. In any event, the data seems to pattern this way regarding other *Ohrmazd* vocatives in the Pahlavi Gāthās. By contrast, in Y.43.7b, the instrumental does not require strong intonational breaks on either side of it, and thus can occupy preverbal position without "isolating" the phrase-final verb.

What have we learned? It seems to me that the Pahlavi translation of the Gāthās reveals a remarkably strong desire to produce a coherent *Pahlavi* text. What is the nature of that text, and how does it relate to the Avestan of the Gāthās? Jamsheed Choksy, another participant in Professor Frye's Middle Iranian seminars alluded to at the start of this paper, noted nearly a decade ago that "[a]nalysis of the Zand is often neglected owing to a widely held conclusion, only partially accurate, that its authors had little knowledge of the Avestan language and therefore garbled the Middle Persian interpretations" (1996:107). Following the lead of Shaked (1994), he suggests that "Pahlavi renderings of the Gāthās represent actual exegesis in addition to mechanical translation." In light of Cantera's (2004:Ch. 5) clear demonstration that knowledge of Avestan grammar was extensive, at least for early Pahlavi translators (including the Gāthās, it seems to me), the alleged "incompetence" of the Pahlavi translation of the Gāthās becomes a problem in itself, rather than an explanation for the form of the text we have. Some progress can be made on that problem if we were to stop treating the Pahlavi text as an attempt at a strongly literal translation. The task before us, antecedent to determining just how (or if) the Pahlavi (and Sanskrit) translations can help us in determining the best interpretation of the Gāthās, is to figure out what these texts actually say, and why.

[4]For comparison, of the over 850 instances of the vocative *agne* in the Rigveda, I find only 5 which sit before a clause-final verb.

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Zur Verbalbetonung im Ṛgveda

HEINRICH HETTRICH

Die Regeln für die Verteilung von betonten und unbetonten Verben im Veda und ihr Zusammenhang mit Parataxe und Hypotaxe sind seit langem bekannt. Neben den Standardfällen steht aber eine nicht unbeachtliche Gruppe von Sätzen, die diesen Regeln nicht entsprechen; es handelt sich überwiegend um zweigliedrige Satzfolgen, in denen das Verb des Vordersatzes betont sein kann, während für den zweiten Teilsatz die bekannten Regeln gelten. Ein solches Satzpaar ist

(1) 1.152.3d[1] *ṛtám píparti ánṛtaṃ ní tārīt*
„Die Wahrheit fördert er, die Unwahrheit drückt er nieder."

Als ähnlicher Fall, allerdings mit unbetontem Vordersatz, kann angeführt werden

(2) 2.24.3c *úd gā́ ājad ábhinad bráhmaṇā valám*
„Herauf führte er die Kühe; mit einem Spruch spaltete er den Vala."

In der Mehrzahl dieser Fälle besteht ein antithetisches Verhältnis zwischen beiden Sätzen. Je klarer und stärker die Antithese ist, desto eher trägt das Vordersatzverb einen Akzent; abgesehen von Sonderfällen (*ca – ca, vā – vā*) liegt aber keine bindende Regel vor.

Die Diskussion über diese Konstruktionen wurde bisher v.a. getragen durch Delbrück (1888:37–51), Oldenberg (1906:707–41), Dunkel (1985:47–56), Hettrich (1988: 155–69), Klein (1992 passim) sowie Lühr (2008:307–27). Die Urteile dieser Autoren über den grammatischen Status dieser antithetischen Sätze stimmen nicht überein. Delbrück, l.c., hebt hervor, „dass zur Vervollständigung [der Konstruktion] ein zweiter Satz nöthig ist. Der Gedanke dieses zweiten steht zu dem ersten im Verhältniss des Gegensatzes oder der Folge oder ist sonst irgendwie mit ihm zur Einheit verbunden. Der zweite Satz gilt als Hauptsatz, der erste bildet die Vorbereitung und wird insofern als Nebensatz bezeichnet."

Knapp zwanzig Jahre nach Delbrück hat Oldenberg das gesamte ṛgvedische Material erfaßt und nochmals untersucht. Er teilt die Sätze nach ihrem internen Aufbau

[1] Alle Textstellen stammen aus dem RV.

in Subtypen ein und zieht stärker als Delbrück weitgehend analog gebaute Sätze, allerdings mit unbetontem Verb, zum Vergleich heran wie soeben Beleg (2) gegenüber (1). Als Generallinie, die sich durch alle Konstruktionsvarianten durchzieht, ergibt sich, wie schon angedeutet, daß das Verb des Vordersatzes um so eher betont ist, je deutlicher der Kontrast zwischen beiden Sätzen ausgeprägt ist. Allerdings ist Oldenberg mit dem Vorschlag Delbrücks, einen Vordersatz mit betontem Verb grundsätzlich als hypotaktisch aufzufassen, nicht einverstanden: „Denn es handelt sich nicht um Unterordnung, sondern um Nebeneinanderstellung oder Gegenüberstellung zweier gleichberechtigter Elemente; meist hätten diese ebensogut in umgekehrter Ordnung stehen können" (1906:708).

Mit diesem Urteil erfaßt Oldenberg zwar die überwiegende Anzahl der einschlägigen Fälle, aber daneben muß er doch einige Belege als Nebensätze anerkennen, die ihrem Hauptsatz vorangestellt sind, darunter

(3) 6.47.31c *sám áśvaparṇāś cáranti no náro*
'smā́kam indra rathíno jayantu
„[Wenn] unsere rossebeflügelten Herren sich sammeln,
so mögen u n s e r e Wagenkämpfer siegen, o Indra!" (Gld.)

oder

(4) 1.85.7b *ā́ nā́kaṃ tasthúr urú cakrire sádaḥ*
„Indem/Nachdem sie den Himmel erstiegen haben, haben sie sich einen breiten Sitz geschaffen."

Sätze dieser Art sind allein durch den Verbalakzent als subordiniert gekennzeichnet, und unterscheiden sich ausdrucksseitig nicht von den eigentlich antithetischen mit ebenfalls betontem Verb im Vordersatz.

Ähnlich wie Oldenberg urteilt auch Dunkel (1985:48–50). In einem Zusammenhang, wo es primär um nachgestellte subordinierte Sätze geht, schlägt er auch für die vorangestellten Sätze mit akzentuiertem Verb eine Differenzierung in "main clauses" mit Verbalbetonung aufgrund von Emphase neben äußerlich übereinstimmenden aufgrund von Subordination vor. Dabei sei Emphase als Auslöser von Verbalbetonung ursprünglicher als Subordination.

Die ausführlichste Behandlung des Konstruktionstyps verdanken wir J. S. Klein in seiner Monographie von 1992. Er stützt sich auf Oldenbergs Material und Gliederung und erkennt, ähnlich wie Oldenberg, zwei Hauptgruppen: a) Vordersätze in nicht-subordinierten, teils antithetischen, teils progredienten Strukturen, die zahlenmäßig überwiegen, sowie: b) subordinierte Sätze ohne einleitenden Subordinator, die zwar weniger häufig belegt, aber doch klar nachweisbar sind. Als Beispiele für die zweite Gruppe lassen sich neben anderen anführen

(5) 6.72.2cd *úpa dyā́m skambhátu skámbhanenā́-*
-prathatam pr̥thivī́m mātáraṃ ví
„Während ihr den Himmel durch eine Stütze gestützt habt,
habt ihr die Mutter Erde weit ausgebreitet."

(6) 10.2.2cd *svā́hā vayáṃ kr̥ṇávāmā havī́ṃṣi*
devó devā́n yajatv agnír árhan
„Wenn wir unter Svaharufen die Opfergüsse darbringen,
soll der himmlische Agni als Berechtigter die Himmlischen verehren."

Für die erste Gruppe sei auf Beleg (1) zurückverwiesen; ein weiterer Satz ist u.a.

(7) 1.35.9c *ápāmīvām bā́dhate véti sū́ryam*
„Er drängt die Krankheit weg, er verfolgt die Sonne."

Die entscheidende Gemeinsamkeit, eben die, welche die Verbalbetonung zur Folge hat, liegt nach Klein in der "incompleteness" der beteiligten Strukturen. In der antithetischen Konstruktion gelte dies in pragmatischem Sinne für den Vordersatz ohne den Nachsatz, in der subordinierten Konstruktion für den Nebensatz ohne den Hauptsatz. Nach der Wortstellungstypologie gehören das Vedische und sicher auch die idg. Grundsprache zu den nicht-rigiden SOV-Sprachen. Demnach sei die vorherrschende Position des Verbs in den Vordersätzen beider Konstruktionstypen am jeweiligen Ende dieses Vordersatzes, also an der Scharnierstelle beider Teilsätze, d.h. am Gipfel der Satzintonationskurve, und das drückt sich in der Betonung des Vordersatzverbs aus. Bei den Nebensätzen führte das weiter zur Grammatikalisierung der Verbalbetonung auch in den weniger häufigen Fällen mit dem Verb an anderer Stelle im Satz bzw. bei der Abfolge Hauptsatz vor Nebensatz. Dagegen blieb in der antithetischen Konstruktion das Nebeneinander bzw. Konkurrenzverhalten von betontem und unbetontem Verb im Vordersatz, je nach Grad oder Intensität der Antithese, bestehen. Die angesprochene "incompleteness" in beiden Konstruktionen bestehe also darin, daß der Nebensatz allein bzw. der Vordersatz in Antithesen eine hinsichtlich der Aussageabsicht unvollständige Konstruktion darstellt.

Mit Klein stimmt nicht vollständig, aber in wesentlichen Punkten Lühr (2008) überein. Sie stellt als These auf (S. 312), daß die Verbalbetonung in dem ersten Konjunkt (dem Vordersatz) durch die Erwartung eines zweiten Konjunkts verursacht wird. Sachlich ist hier kein Unterschied gegenüber Kleins "incompleteness" zu erkennen. Weiter heißt es, der steigende Akzent bilde ikonisch Offenheit bzw. Unabgeschlossenheit ab. Und schließlich vertritt Lühr die Ansicht (S. 316), „the Udātta in conjunct-final position on the verb of the first conjunct is a signal for bipartiteness"; auch dieses in der Sache, nicht in der Terminologie, keine wirkliche Abweichung gegenüber Klein. Um so überraschender mutet es an, wenn die Autorin zu dem Schluß kommt (S. 316), die steigende Intonation des ersten Teilsatzes zeige keine Subordination an, sondern Koordination. Damit geht sie über alle bisher referierten Autoren hinaus, die die Vordersätze zumindest eines Teils der bisher besprochenen Konstruktionen als subordiniert verstehen.

Meine eigene Beschäftigung mit dem Gegenstand (1988:155–65) hat mehr Gemeinsamkeiten mit Delbrück als mit den zuletzt referierten Autoren. Sie versucht, mit möglichst wenigen Klassen von Satztypen auszukommen und deshalb auch die Vordersätze in antithetischen oder progredienten Satzabfolgen als subordiniert—vielfach adversativ—zu verstehen wie z.B.

(8) 8.96.5c *prá párvatā ánavanta prá gā́vaḥ*
„Los schrien die Berge, los die Kühe." (bzw.: „Während ... losschrien ...")

Zugunsten dieser Lösung läßt sich auch die folgende Stelle mit adversativem *anyá- / anyá-* anführen:

(9) 2.40.5ab *víśvāni anyó bhúvanā jajā́na*
víśvam anyó abhicákṣāṇa eti
„der eine hat alle Wesen geschaffen („Während der eine ..."),
wandelt der andere, alles beschauend." (Gld.)

Die Annahme eines subordiniert-adversativen Verhältnisses wird durch einen vergleichbaren Satz mit adversativem *yád* (hypotaktisch konstruiert) unterstützt:

(10) 3.55.17ab *yád anyā́su vr̥ṣabhó róravīti*
só anyásmin yūthé ní dadhāti rétaḥ.
„Während der Stier unter den einen Kühen brüllt,
legt er in die andere Herde seinen Samen."

Bei der Betrachtung weiterer, antithetischer, aber auch progredienter, Satzpaare zeigt sich aber, daß diese Satzfolgen in vielen Fällen mit der communis opinio als intern gleichrangig und nicht subordiniert aufgefaßt werden können, so auch in

(11) 1.123.12c *párā ca yánti púnar ā́ ca yanti*
„Sie gehen weg und kommen wieder zurück."

oder

(12) 2.16.2d *háste vájram bhárati śīrṣáṇi krátum*
„In der Hand trägt er die Keule, im Kopf den Verstand."

Für parataktische, koordinierte Auffassung sprechen auch zahlreiche gleichrangig konstruierte Satzfolgen mit unbetontem Verb im Vordersatz, für den schon deshalb hypotaktische Geltung ausgeschlossen ist, z.B.:

(13) 1.93.6ab *ányáṃ divó mātaríśvā jabhārá-*
-mathnād anyám pári śyenó ádreḥ
„Den einen hat Mātariśvan vom Himmel hergebracht,
den anderen raubte der Falke vom Felsen.“ (Witzel/Gotō)

oder

(14) 1.161.14a *divā́ yānti marúto bhū́myāgnír*
„Am Himmel schreiten die Marut, auf der Erde Agni.“

Es zeigt sich also folgender Befund:

a) In begrenzter Anzahl gibt es Sätze, die nur durch den Verbalakzent als subordiniert markiert sind; ein Musterfall ist 6.47.31c (s.o. (3)).

b) Ebenso in begrenzter Anzahl gibt es Sätze mit betontem Verb, die als selbständige Sätze in antithetischem oder progredientem Verhältnis zu ihrem Nachsatz stehen, darunter 1.152.3d (s.o. (1)) und 1.35.9c (s.o. (7)). Besonders deutlich ist progredienter Bezug in

(15) 1.62.3 *bṛ́haspátir bhinád ádriṃ vidád gā́ḥ*
„Brhaspati spaltet den Felsen und findet die Kühe.“

c) Und schließlich gibt es eine dritte Gruppe von Satzfolgen mit betontem Verb des Vordersatzes, die sowohl zu (a) als auch zu (b) gehören können, ohne daß in der Mehrzahl der Fälle eine fundierte Entscheidung möglich wäre. Es ergibt sich also eine grammatische Homonymie zwischen zwei Konstruktionen, die auch semantisch allenfalls mit Mühe voneinander getrennt werden können. Dies bedeutet: Während man im „Normalfall“ sprachwissenschaftlicher Fragestellungen bestrebt sein muß, jedes einzelne Phänomen so genau wie möglich in eine Kategorie einzuordnen und von nur ähnlichen zu trennen, ist es in der vorliegenden Problematik notwendig, auf diesen Grad an Präzision zu verzichten, um keine willkürliche, nur scheinbare Kategorisierung zu erreichen.[2]

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[2] Dieses Ergebnis impliziert gleichzeitig eine Modifikation meiner Annahmen in Hettrich 1988:157–65.

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Narrative Linkage in Sanskrit[*]

HANS HENRICH HOCK

1 Introduction

In the last chapter of his study of *Mahābhārata* poetics, Sharma (1964) provides an excellent discussion on the use of formulaic expressions in the great epic. Referring to earlier studies such as Hopkins 1901, Belvalkar 1939, Kane 1939, Renou 1939, and Sukthankar 1939, he demonstrates that many of the formulas employed in the *Mahābhārata* "are constituents of the traditional stock," found in a broad range of oral textual traditions of ancient India. Further, he notes the use of "repetitive phrases or words in a set of verses as . . . linkage or concatenation . . . " (168).

While Sharma's focus was on the use of refrains and similar structures as poetic and thematic linkage, I have argued in two earlier papers (Hock 1994a, 1994b) for a more narrowly defined phenomenon of NARRATIVE LINKAGE—a tendency to establish narrative continuity through fronting of a variety of elements, ranging from demonstratives, conjunctions and adverbials, to finite and nonfinite verbs.

In this paper I summarize the findings of these papers, add to them, and explore to what extent the approach can be extended to fable literature and Vedic narratives. While there are certain similarities, there are also important differences which, to some extent, can be attributed to genre differences. I hope these findings contribute to the field of stylistic and rhetorical research on Sanskrit and other early Indo-European languages.

2 Toward a comprehensive account of Sanskrit narrative linkage

An early attempt at an account of Sanskrit discourse linkage is Oldenberg 1917. In spite of its accomplishments, however, the account suffers from several weaknesses.

[*] I am indebted to Stephanie Jamison, whose work has reinforced my interest in exploring the relationship between syntax and genre, as well as to Jared Klein and Rajeshwari Pandharipande, whose comments on earlier versions of this paper have been stimulating and helpful. I have also benefited from discussions with Sarah Tsiang-Starćević regarding her work on the use of finite and nonfinite subordination devices in Sanskrit narratives (see Tsiang-Starćević 1997). As usual, the responsibility for any errors lies with me.

First, Oldenberg claims that demonstratives are the oldest linkers and that others, especially fronted finite and nonfinite verbs, reflect a later stylistic elaboration. Now Oldenberg is certainly correct in claiming that early Vedic Prose is fairly simple in its rhetoric and tends to employ mainly demonstratives and particles for clause linkage. However, the use of fronted finite and nonfinite verbs can be traced back to the *Ṛgveda* (see §4.4 below). Later Vedic Prose, with a more digressive style, offers a fair number of examples with converbs and participles serving as narrative linkers (see §4.3 below).

Further, the hymns of the mantra language and the didactic and (occasionally) narrative prose of the Brāhmaṇas constitute different genres. Recent research shows that genre differences may correlate with considerable differences in syntactic preferences; see Jamison 1991, Hock 1993, 1997a, 2000, 2014, Tsiang-Starćević 1997. Differences between the mantra language and Vedic Prose may therefore reflect differences in genre, not chronology.[1]

Most important, as Oldenberg realized, the use of our putative linkers is not limited to narratives. "Initial strings" of fronted demonstratives and various unaccented and accented particles, as in (1), are a notorious feature of both the narrative (1a) and the didactic (1b) portions of Vedic Prose; see also §4.3 below. Converbs and other nonfinite devices likewise occur both in (quasi-)narrative and didactic portions; e.g. (2a) beside (2b).

(1) a. **śa̱ryāto ha vā̱ idaṁ** mā̱navo grā̱meṇa cacāra (ŚB 4.1.5.2)
"Śaryāta Mānava was moving around here with his troop."

b. **ya̱m u haiva ta̱t** paśa̱vo manu̱ṣyeṣu kā̱mam arohaṁs . . . (ŚB 2.1.2.7)
"What desire the cattle then obtained among men . . . "

(2) a. prajāpatir akāmayata prajāyeya bhūyān syām iti
sa tapo 'tapyata
sa tapas **taptvā**—imāṁl lokān asṛjata . . .
tāṁl lokān abhyatapat
tebhyo **'bhitaptebhyas** trīṇi jyotīṁṣy ajāyant(a) (AB 5.32.1)
"Prajāpati desired, 'May I procreate, may I be greater.' He performed austerities. He, having performed austerities, created these worlds . . . He heated these worlds. From these, having been heated, three lights arose . . . "

b. sa ta̱ta eva prā̱k stambayaju̱r harati
stambayaju̱r **hṛtvā̱** + athe̱ty evā̱gre pa̱ri gṛhṇāti (ŚB 2.6.1.12)
"He throws the grass bundle east from there. Having thrown the grass bundle, he first encloses (the altar) thus . . . "

[1] Oldenberg concedes something like this when he states (p. 20) that early Vedic Prose fails to take advantage of the full range of devices vouched for by the mantra language. However, it is not clear whether his statement is intended to cover the whole range of linkage devices, including, say, nonfinite verbs.

We must therefore ask which of the various linkers are characteristic of narratives and which are used more generally. A comprehensive investigation of Sanskrit narrative linkage thus has to consider many different narrative texts and genres, contrast them with non-narrative texts, passages, and genres, and determine which devices are characteristic of linkage in narratives in general, which are specific to particular narrative genres (such as epics vs. fables), and which are employed just about anywhere.

3 A survey of linkage devices

It is useful to begin this investigation with a survey of different linkage devices, whether noted in earlier literature or not.[2]

DEMONSTRATIVE PRONOUNS,[3] as in A.1, were recognized as clause linkers as early as Delbrück 1888:213 and Speijer 1886:206, 1896:82; see also Jamison 1991 and the extensive literature on "*sa figé*" (e.g. Jamison 1992, Klein 1996, Dunkel 1997, Hock 1997b, Watkins 2000).

A. 1. tathaivāsīd vidarbheṣu bhīmo bhīmaparākramaḥ | . . . ||
sa prajārthe paraṁ yatnam akarot . . . |
tam abhyagacchad brahmarṣir damano nāma . . . ||
taṁ sa bhīmaḥ . . . toṣayām āsa dharmavit | (MBh. 3.50.5–7)
"Likewise there was among the Vidarbhans Bhīma of terrible prowess . . . He made the utmost effort for the sake of progeny . . . To him came a brahmin sage, named Damana . . . Him that Bhīma gladdened, knowing dharma."

Several ADVERBIAL forms of the pronouns, especially *atha* 'now', *tatas* 'thereupon, then', and *tathā* 'thus, so, likewise', have acquired coordinating functions, as in B.1, and thus can be employed as linkage devices. They compete with second-position COORDINATING CONJUNCTIONS, such as *ca* 'and' or *tu* 'but, and . . .'; C.1. See e.g. Delbrück 1888, Speijer 1886, 1896, and for the Vedic language especially Klein 1985.

[2]My focus here is on elements that are fronted into initial or near-initial position in the clause. All of the devices can occur in other positions; see the following examples.

(iii) Demonstrative pronouns
tasyā gātreṣu patitā **teṣāṁ** dṛṣṭir mahātmanām (MBh. 3.54.9)
"On her limbs their view was fixed, of the noble ones."
(ii) Conjunctions and adverbs
tataś cintāparā . . . | babhūva damayantī **tu** niḥśvāsaparamā **tadā** (MBh. 3.51.2)
"Thereupon Damayantī became filled with sorrow, highly filled with grief, at that time."
(iii) Verbs
tasmai prasanno damanaḥ sabhāryāya varaṁ **dadau** | (MBh. 3.50.8)
"To him together with his wife, Damana, being pleased, granted a boon."

[3]Following the Sanskrit grammarians, I use the neuter form, *tad* or *etad*, to refer to these pronouns.

B. 1. a. **atha** dīrghasya kālasya parṇādo . . . | pratyetya . . . abravīd (MBh. 3.68.1)
"Now, after a long time, Parṇāda, returning, said . . ."
b. **tato** 'ntarikṣago vācaṁ vyājahāra . . . (MBh. 3.50.19)
"Then the bird said a speech . . ."
c. **tathai**vāsīd vidarbheṣu bhīmo bhīmaparākramaḥ (MBh. 3.50.5)
"Likewise there was among the Vidarbhans Bhīma of terrible prowess . . ."

C. 1. a. nalaś **ca** . . . | kandarpa iva . . . abhavat svayam || (MBh. 3. 50.14)
"And Nala was like the God of Love himself."
b. damayantī **tu** . . . | yaśaḥ prāpa . . . || (MBh. 3.50.10)
"But/And Damayantī acquired fame."

Another device traditionally recognized as a potential linker is FINITE VERB fronting, D.1; see e.g. Delbrück 1878:22–3, Hock 1982, Klein 1991, as well as Dressler 1969 for Indo-European in general. A Vedic alternative consists in fronting only the preverb, as in the second and third parts of D.1.b, where the "stranded" verb is in small caps.

D. 1. a. **abravīd** ṛtuparṇas tam . . . (MBh. 3.70.16)
"(Then) Ṛtuparṇa said to him . . ."
b. **áhann** áhiṁ
ánv apás TATARDA (|)
prá vakṣáṇā ABHINAT párvatānām (RV 1.32.1cd)
"He slew the dragon; he broke open the waters; he split forth the bellies of the mountains."

NONFINITE verbs are also used as linkers. Early western accounts of Sanskrit generally pay no attention to the linking functions of nonfinite verbs.[4] But Indian scholars, such as Kale (1894:514–5) and Apte (1890:111), note that converbs[5] "act as connecting links between sentences" (Kale 1894:515), as in E.1. Converbs are not the only nonfinite Sanskrit linkers. They are in a quasi-suppletive relation with other devices, as can be seen in E.2. While the converb is used in a. and d., b. employs a *ta*-PARTICIPLE, and c. a *ta*-participle in the LOCATIVE ABSOLUTE.

[4]An exception is Delbrück (1888:385), who notes the use of *ta*-participles as linkage devices in Vedic Prose; his extended example also includes converbs.
[5]Alternative terms include "gerund," "absolutive," "conjunctive participle," none of which is without problems.

E. 1. tatas taṁ rathanirghoṣaṁ nalāśvās tatra śuśruvuḥ |
śrutvā ca samahṛṣyanta . . . (MBh. 3.71.3)
"Then the horses of Nala heard that roaring of the chariot there. And having heard (it), they became excited . . . "

2. a. . . . pratyūcus te divaukasaḥ | . . . ||
evam **uktvā** kaliṁ devā . . . yayuḥ || (MhBh 3.55.7–11)
"Those heaven-dwellers replied, ' . . . .' Having thus spoken to Kali, the Gods went . . . "

b. yudhiṣṭhira uvāca | . . . ||
evam **uktas** tato rājñā
ḍhaumyo 'tha . . . | akarot vidhivat sarvaṁ (MhBh 4.4.51–52)
"Yudhiṣṭhira spoke, ' . . . .' Thus spoken to by the king, Ḍhaumya then did everything duly."

c. evam **ukte** nalena . . .
nṛpaḥ . . . āsasāda . . . bibhītakam (MhBh 3.70.6)
"Nala thus having spoken, . . . the king sat near a vibhītaka tree."

3. sa saṁnipātayām āsa mahīpālān . . . | anubhūyatām
ayaṁ . . . svayaṁvara iti . . . ||
śrutvā tu pārthivāḥ sarve damayantyāḥ svayaṁvaram |
abhijagmus tadā bhīmaṁ . . . || (MBh. 3.51.8–9)
"He summoned the rulers of the earth (with the words) 'Please observe this self-choice. . . .' . . . And all the rulers, having heard (the announcement of) Damayantī's self-choice, then came to Bhīma . . . "

Following Bloch 1930 the discourse-linking use of converbs as in E.1 and E.2.a, E.3 has been considered to reflect Dravidian influence; see especially Emeneau 1971. Under the name TAIL–HEAD LINKAGE the phenomenon of nonfinite recapitulation has been shown to be more widespread in (folk) narratives, irrespective of syntactic typology (Thompson and Longacre 1985:209–13); and under the term CATENA it has been shown to occur in Ancient Greek (Migron 1993). Further, the choice between converbs (as in E.2.a) and participial structures (E.2.bc) serves purposes recognized as SWITCH REFERENCE (Haiman and Munro 1983). Converbs, because they normally require agent (*kartṛ*) identity, indicate actor continuity, transitive *ta*-participles switch focus to the patient (*karman*) of the preceding structure, and locative absolute structures permit focusing on yet other constituents.

Beside "bare" converbs of the type E.1, we find more frequently combinations of converbs + SATELLITES—objects, adverbs, etc.; see E.2. While in E.2 the Satellite consists of a single word (*evam*), E.3 shows that it may consist of more material (indicated by italics).

Example E.3 further shows that nonfinite linkage does not require exact lexical

repetition—*śrutvā* 'having heard' does not recapitulate the key verb of the preceding action, *saṁnipātayām āsa* 'caused to come together', but indicates that the preceding message has been heard, as intended.

Significantly, the different devices enumerated so far can be found in combination, in what may be called LINKAGE STRINGS. Compare the examples in F.1.[6]

F. 1. a. **tatas tā** naiṣadham **dṛṣṭvā** . . . (MBh. 3.52.14)
(adv. + *tad* + (SAT +) conv.)
"Then they, having see the Niṣadhan . . . "

b. **te tu** haṁsāḥ **samutpatya** . . . (MBh. 3.50.21)
"But those swans, having flown up . . . "
(*tad* + conj. + (SAT +) conv.)

c. **praviśantīṁ tu tāṁ dṛṣṭvā** . . . (MBh. 3.62.20)
"But having seen her entering . . . "
(pres.pple + conj. + *tad* + conv.)

Finally, dependent clauses are potential linkers; see G.1.

G. 1. **yád** indrā́han prathamajā́m áhīnām (|) ā́n māyínām áminā̄ḥ prótá māyā́ḥ (RV 1.32.4ab)
"When you, Indra, slew the first-born of dragons, then you tricked out the tricks even of the tricksters."

4 Comparison of linkage devices in narrative and non-narrative passages

The following sections compare narrative vs. non-narrative passages within a range of Sanskrit narrative texts, in order to determine the extent to which the different linkage devices enumerated in §3 are characteristic of narrativity and which different devices are characteristic of different genres (epic, fable, etc.). Statistics are based on the following samples.[7]

Ṛgveda: Hymns 1.32, 1.121, 2.15.[8] About 25 of the 40 verses are narrative, the remaining 15, non-narrative.

Vedic Prose stories: Manu and Fish (ŚB 1.8.1.1–11), Urvaśī and Purūravas (ŚB 11.5.1), Śunaḥśepa (AB 7.13–18), **plus a ritualist passage** (ŚB 1.3.1.1–20).

[6] Here as elsewhere the elements of "Linkage Strings" are highlighted, and the identity of the elements is identified below the citation. The following abbreviations are employed: adv. = conjunction-like adverbial, conv. = converb, conj. = coordinating conjunction, pple. = participle, pres. = present, SAT = satellite.

[7] The emphasizing particle *eva*, as well as *tad* used as correlative pronoun are ignored. On the other hand, listings for *tad* include pronominal adverbs which have not become specialized as quasi-conjunctions.

[8] The sampled texts are all trimeter verse which, with its longer lines, offers more "space" for fronting.

Narrative and non-narrative portions are on average nearly equally divided in the stories. The ritualist passage contains about 100 sentences; the narrative passages, ca. 650.

Epic Sanskrit: Nala and Damayantī books 1–3. About 28 verses are narrative, 56 are non-narrative.

Hitopadeśa: Sections 1.2, 4.9, and 4.10. Narrative and non-narrative passages are about equally divided. (Total length: about 100 sentences.)

4.1 Linkage in Epic Sanskrit

The distribution of linkers in narrative vs. non-narrative portions is summarized in Table 1. The entries under Narrative are adjusted (multiplied by 2) in order to allow for the fact that, because of the heavy dominance of cited-discourse passages, the ratio of narrative portions to non-narrative ones is 1:2. (Raw figures are given in parentheses.) Here as elsewhere simple and linkage occurrences of relative clauses are not distinguished.

A glance at the table shows that most putative linkers occur not only in narratives, but also in non-narratives. Major exceptions are conjunction-like adverbials which, in this sample, are limited to narratives, and simple finite verbs, which have about an equal chance of occurring in narrative and non-narrative portions. The latter finding is surprising, since in many other early Indo-European languages, especially early Slavic and Germanic, finite verb fronting is a highly prominent feature of epic style and, in Icelandic, even of narrative prose. In fact, spot checks on other major stories of the *Mahābhārata* show that the story-initial *āsīd* in (3) is not typical for Epic, contrary to common perspective (see e.g. Dressler 1969). Rather, it is nonfinite verb fronting that is robustly associated with narrativity.

	SIMPLE		IN LINKAGE STRINGS	
	Narrative	Non-narrative	Narrative	Non-narrative
tad	12 (6)	7	44 (22)	4
Adv.	12 (6)	∅	20 (10)	∅
Conj.	10 (5)	4	26 (13)	1
Fin. V	2 (1)	3	22 (11)	3
Nonfin. V	10 (5)	2	48 (24)	1
Rel. Cl.	4 (2)	6		

Table 1. Distribution of linkers in Epic Sanskrit (Nala)

(3) **āsīd** rājā nalo nāma …
"There was a king, Nala by name …"

Most important is the fact that Linkage Strings are robustly associated with narrativity and evanescently rare in non-narrative portions.

Finally, the difference between relative clause linkage in narrative and non-narrative passages in our sample is not particularly strong. The much broader investigation of Tsiang-Starčević (1997) shows that relative clauses are rare in the narrative passages of ALL Classical narrative genres and thus are a negative indicator of narrativity.

4.2 Linkage in fable literature

The distribution of linkers in the *Hitopadeśa* sample (Table 2) shows certain similarities, but also interesting differences, compared to Nala.

Here, too, finite-verb fronting is not particularly associated with narrativity, even though the use of story-initial *asti* is common (and well known). On the other hand, conjunction-like adverbials are strongly associated with narrative, and so are nonfinite verbs.

What is most strikingly different is the absence of any Linkage Strings in non-narratives, and the absence of relative-clause linkage in narratives. (In the latter regard, fable literature robustly conforms to Tsiang-Starčević's (1997) more general findings for Classical Sanskrit.)

	SIMPLE		IN LINKAGE STRINGS	
	Narrative	Non-narrative	Narrative	Non-narrative
tad	7	7	15	∅
Adv.	10	2	12	∅
Conj.	2	2	4	∅
Fin. V	4	4	∅	∅
Nonfin. V	5	1	8	∅
Rel. Cl.	∅	11		

Table 2. Distribution of linkers in the Hitopadeśa

However, Linkage Strings are less common in fable literature than in Nala, and their complexity tends to be quite limited. 17 of the 20 fable Linkage Strings contain just two words, as in (4a), only five are of the more complex type (4b).

(4) a. **sa ca** mṛgaḥ … kenacic chṛgālenāvalokitaḥ (1.2)
(*tad* + conj.)
"And that deer was seen by a certain jackal."

b. **tataḥ** kākaśabdaṁ **śrutvā** mṛgaḥ … palāyitaḥ (1.2)
(Adv. (+ SAT.) + conv.)
"Then, hearing the sound of the crow, the deer … fled."

These facts must be considered in conjunction with another feature distinguishing

fable and Epic: As Tsiang-Starčević (1997) demonstrates (see also Tsiang and Watanabe 1987), the fables differ from other narrative genres, especially the Epics, in employing very different overall rhetorical strategies, including heavy sentence-internal use of nonfinite verbs (generally converbs) as "stepping stones" toward the main verb of the clause, as well as a much more condensed portrayal of the action; see e.g. (5). In light of their condensed style, the fables would naturally avoid the complex Linkage Strings of Epic narratives.

(5) ity **ālocya** tena grāmaṁ **gatvā** dadhikarṇanāmā biḍālo māṁsādyāhareṇa **saṁtoṣya** prayatnād **ānīya** svakandare dhṛtaḥ (2.4)
"... thinking thus, going to the village, satisfying a cat named Yoghurt-Ear with meat and other food, taking (it) along with some effort, he kept it in his cave."

4.3 Linkage in Vedic-Prose narratives

In contrast to Classical Sanskrit, Vedic-Prose narratives do not make frequent use of Linkage Strings such as (6), other than the formula *sa hovāca* (*tad* + (particle) + Fin.V), which occurs some 37 times. Moreover, the few Linkage Strings that occur tend to be quite short; the one in (6d) is the longest in the sample (but see also (2) above). Instead, all of Vedic Prose, whether narrative or non-narrative, ritualist or non-ritualist, is saliently characterized by "Initial Strings" consisting of topicalized elements (commonly nominal or pronominal), demonstrative and other pronouns, as well as particles; cf. (7) and see Hock 1982, 1996, Hale 1996 for different accounts. In addition, there are examples such as (8), in which a converb near the beginning of its clause functions both as linker and as "stepping stone" toward the main verb, similar to the rhetoric of the fables. As Tikkanen (1987) notes, structures like this are common in "procedural" Vedic Prose.

The summary in Table 3 therefore does not distinguish simple and linkage-string occurrences. The table does, however, present a separate listing for the ritualist passage that I examined (ŚB 1.3.1.1–20). To compensate for the fact that this passage is only about one-sixth the length of the narrative texts, or one-third of the narrative and non-narrative portions respectively, the figures are multiplied by three (with the raw data in parentheses).

(6) a. **tasyāvanenijānasya** matsyaḥ pāṇī 'āpede (ŚB 1.8.1.1)
tad + pple.
"Into his hands, as he was washing himself, came a fish."

b. iti **ha smākhyāya** | athainam uvāca (AB 7.13–14)
so (= SAT) + particles + conv.
"Thus having spoken, he then said to him."

c. **taṁ paśyanti** paśavo vayāṁsi ca (AB 7.13)
tad + fin. V
"The cattle and the birds see him."

d. **sa ekayā pṛṣṭo** daśabhiḥ pratyuvāca (AB 7.13)
tad + SAT + *ta*-pple.
"He, asked in one (verse), answered in ten."

(7) **daívīṁ ca vā́vá + asmā etád** viśaṁ mānuṣī́ṁ cā́nuvartamānau karoti
divine and PCL he.DAT then ...
"He then makes both the divine tribe and the human one subservient to him." (MS 3.3.10)

(8) sa ha nety **uktvā** dhanur **ādāya** + araṇyam apātasthau (AB 7.14)
"Saying 'No,' taking his bow, he went off to the wilderness."

	Narrative	Non-narrative	Ritualist
*tad**	97	40	132 (44)
Adv.	17	14	102 (34)
Conj.	75	8	111 (37)
Fin. V*	2	9	9 (3)
Nonfin. V	20	10	24 (8)
Rel. Cl.	8	42	75 (25)

*These figures do not include 27 instances of the *sa hovāca* formula.

Table 3. Distribution of linkers in Vedic-Prose narratives

Several things are noteworthy in Table 3. First, *(e)tad* heavily predominates in first position. However, it does so in all three subgenres—as it does in all of Vedic Prose. Moreover, in terms of frequency of use, narrative portions are more similar to ritualist ones than to non-narrative ones. Given that the non-narrative portions generally are cited discourse, the lower frequency in these portions may be another example of the way dialogue differs from the rest of Vedic Prose (Jamison 1991).

The closer agreement between narrative and ritualist passages might be explained by assuming that Vedic-Prose narrative essentially has adopted the style of the dominant technical discourse. In this regard, note that narrative and ritualist texts also show closer agreement in the frequency of the use of conjunctions and nonfinite verbs, again differing from non-narrative, dialogue passages.

This agreement between non-dialogue portions intersects with the general tendency, noted by Tsiang-Starčević for post-Vedic, for relative clauses to be rarer in narratives than other subgenres, a tendency manifested also in Table 3.

An important difference is the rarity of Linkage Strings in Vedic Prose versus their frequent and salient use in the Epic genre. Perhaps this rarity is attributable to the fact

(noted earlier) that Vedic Prose makes heavy use of its own type of Initial Strings and that the latter may not leave sufficient room to also accommodate Linkage Strings.

Finally, the summary in Table 3 shows that, as in the Epic and the fables, finite verb fronting is rare, no matter what the (sub-)genre. Interestingly, it seems to be even less common in narrative than in non-narrative/dialogue or ritualist passages.

4.4 Linkage in Ṛgvedic narratives

The *Ṛgveda* is, in principle, a collection of hymns, not of stories. Nevertheless, some hymns, especially those recounting the heroic deeds of Indra, are narrative in character. Table 4 presents statistics for three such hymns (1.32, 1.121, 2.15), totaling 40 verses, of which about 25 are narrative.

	Narrative	Non-narrative
tad	8	1
Adv.	2	1
Conj.	1	1
Fin. V	29	5
Nonfin. V	11	Ø
Rel. Cl.	11	11

Table 4. Distribution of linkers in Ṛgvedic (quasi-)narratives

Linkage Strings are rare and in this regard, the *Ṛgveda* is similar to Vedic Prose. (Table 4 therefore does not have a separate listing for Linkage Strings.) Two of the three strings that I have found consist of just two words, and even the one multi-word string, (9), contains only two linkage elements—a demonstrative and a converb (plus a Satellite). It is thus possible that complex Linkage Strings are a feature of EPIC, rather than of all Sanskrit narrative traditions. (Recall that while Linkage Strings are also common in fables, they tend to be shorter than in the Epic.)

(9) sá pravoḷhṝn parigátyā dabhī́ter víśvam adhāg ā́yudham iddhé agnaú (RV 2.15.4ab)
tad + SAT + conv.
"Having surrounded those that carried away Dabhīti, he burned their entire weaponry in the lit fire."

Comparison of the Ṛgvedic data with those of later periods reveals further differences. Most significant is the fact that verb fronting, especially of finite verbs or their prefixes (see D.1.b above), is the most prominent feature of Ṛgvedic narratives. Moreover, relative clauses occur with striking frequency, with a ratio of 1:1 between narrative and non-narrative passages vs. 1:5 in Vedic-Prose narratives.

The differences between Ṛgvedic and later narratives raise the question whether they should be attributed to chronology or to differences in genre. Oldenberg would probably have considered chronology to be decisive. But as noted, recent research suggests that many features differentiating the *Ṛgveda* from later Vedic Prose reflect differences in genre, not chronology.

In fact, as seen in §4.2, the evidence of Epic and fable narratives shows that differences in genre between roughly contemporary narrative traditions may correspond to different choices in narrative linkage, as well as differences in other aspects of rhetorical organization such as the "Stepping-Stone" rhetoric characteristic of the fables.

5 Conclusion

As I hope to have shown, a closer examination of linkers in different narrative genres can yield insights that make it possible not only to better characterize narrative versus non-narrative passages, but also to distinguish between different narrative genres.

Linkage Strings are especially prominent in Epic, where they can reach considerable length and complexity—perhaps a feature of "Epic Breadth." They also occur in fable literature, but apparently because of the more "condensed" rhetoric of this genre, they tend to be shorter and less complex. In Vedic Prose and Ṛgvedic narratives they occur considerably less frequently. Individual linkage devices also feature in the narratives examined in this paper, but with greater differences between genres. While demonstrative fronting is found in all genres, finite-verb fronting is dominant only in the *Ṛgveda*. Outside the *Ṛgveda* it is NONFINITE verb fronting that is commonly associated with narrativity, rather then finite fronting. Relative clauses generally do not play a role as linkers, although they are more frequent in the *Ṛgveda* than the later genres. Finally, it seems that Vedic-Prose narrative passages may have adopted essentially the same rhetoric as the prevailing ritualist genre.

Much more work needs to be done to come to a fuller understanding of the association between linguistic features and genre, both in other Sanskrit genres—narrative and non-narrative—and, by way of comparison, in other early Indo-European languages. In the latter respect it is interesting that Tsiang and Watanabe (1987) find great similarities in the rhetorical organization of the *Pañcatantra* and Aesop's fables; and Migron (1993) observes that the linkage use of nonfinite verbs is likewise shared by Sanskrit and Greek narratives.

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Vedic *stuṣé* 'I praise'

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Among the loose ends of Vedic grammar are "a few difficult first persons middle in *se*" (Whitney 1889:319), in which a seemingly gratuitous *-s-* intervenes between the present stem and the ending *-e*. The iconic example is *stuṣé*, meaning some variant of 'I praise' (: pres. *stáuti*), which occurs 25 times in the *R̥gveda*, mostly as a 1 sg., but also—not mentioned by Whitney—as a 2sg. passive, a 3sg. passive, and an infinitive. Three other forms of this type are found more than once: *gr̥ṇīṣé* (: pres. *gr̥ṇā́ti*) 'I praise with song' (12×, including two instances as a 2sg. passive), *r̥ñjase* (: pres. *r̥ñjáte*) 'I excite (a god)' (6×, not including two cases as an ordinary 2sg. present of the homophonous root *r̥ñj-* 'stretch'),[1] and *cárkr̥ṣe* (: pres. [intens.] *cárkarti*) 'I praise', found once as a 1sg. and twice as a 3sg. passive. The remaining forms, each attested a single time, are *arcase* (: pres. *árcati*) 'I praise with song', *ohiṣe* (: *óhate*, but ptcp. *óhānā́-*) 'I attend to',[2] *gāyiṣe* (: *gā́yati*) 'I sing', *punīṣe* (: *punā́ti*) 'I refine (a hymn)', *yajase* (: *yájati*) 'I worship', and (*prá*) *hiṣe* (no related present) 'I spur on (a god)'. All the verbs in question mean 'praise' or something similar.

It would be safe to say that no one has been quite sure what to make of these forms. As can be seen from the survey of the literature by Rasmussen (1985:393 n. 28), most of the scholars of the Neogrammarian period, including Delbrück (1897:442), Neisser (1902), and Brugmann (1906:525), took them to be historical infinitives. *stuṣé*, according to this view, was properly a dative infinitive comparable to *jiṣé* 'to conquer'; its non-infinitival functions were attributed to the frequent use of the infinitive as an impersonal imperative (*'for praising' > *'let there be praising' > *'let me (you, him) praise'). Facts cited in support of the "infinitive" theory were 1) the use of *-se*-forms in the second and third persons; 2) the unambiguous use of *r̥ñjáse* as an infinitive in one passage (RV 8.4.17) and the possible or probable infinitival use of *stuṣé* in others (see below); and 3) the association of *-se*-forms with other sigmatic nominal forms of the verb, namely, the supposed participles *r̥ñjasānā́-* and *óhasāna-* (: *ohiṣe*) and the infinitive *gr̥ṇīṣáṇi* (: *gr̥ṇīṣé*).[3]

[1]Tucker (2002) makes a convincing case for identifying the root of 1sg. *r̥ñjase* as ²*r̥j-* 'stimulate mentally, excite' (< **Herg*$^{(u)}$-), distinct from the more familiar ¹*r̥j-* 'reach, stretch' (< **h₃erĝ-*).

[2]Not counting *ohase* at 1.30.4, which, as Stephanie Jamison suggests to me (p.c.), may be another example of our type. She will discuss the passage separately.

[3]The putative connection between the 1sg. in *-se* and the forms in *-sāna-* and *-sani* is taken for granted in Grassmann 1873, where it underlies the notion of "Doppelstamm"; see p. 527 s.v. *tar-*.

This approach, which still has defenders,[4] is not very satisfactory. The grammatical ambiguity of the *-se*-forms is mostly a red herring: the 2sg. readings of *stuṣé* and *gṛṇīṣé* are entirely predictable, as are the third-person readings of *stuṣé* and *cárkṛṣe*. (*Any* athematic 1sg. in *-e* can be parsed as a 3sg. "stative" in Vedic; cf. 1, 3sg. *duhé* 'I milk/(she) yields milk', 1, 3sg. *gṛṇé* 'I praise/(he) is praised', 1, 3sg. *bruvé* 'I say/(it) is said', etc.) In actual fact, the preponderance of 1 sg. readings among the attested *-se*-forms (ca. 75%) is quite striking. All the forms that occur only once (*arcase*, *ohiṣe*, *gāyiṣe*, *punīṣe*, *yajase*, and *hiṣe*) are 1st singulars, and even *stuṣé*, in one of the hymns where it arguably figures as an infinitive, is an unambiguous 1sg. a few lines later.[5] *ṛñjasāná-* and *óhasāna-*, which are not participles but adjectives based on adverbially employed *s*-stem instrumentals (cf. *sáhasā* 'with strength' → *sahasāná-* 'powerful', etc.; cf. Insler 1968), redundantly confirm the existence of the *s*-stem nouns *_ṝñjas-_ (attested in Middle Indic phonetic shape as *áñjas-*) 'striving' and *óhas-* 'attention', but provide no support for a link between the nouns and the verbal forms 1sg. *ṛñjase* and *ohiṣe*.[6] The connection, if any, between the infinitive *gṛṇīṣáṇi* and 1sg. *gṛṇīṣé* is obscure; *gṛṇīṣáṇi* is inseparable from the similarly formed *tariṣáṇi* (: *tṝ-* 'penetrate') and *stṛṇīṣáṇi* (: *stṝ-* 'scatter', pres. *stṛṇáti*), while *gṛṇīṣé* is probably an analogical creation on the basis of 1sg. *stuṣé*.[7]

The alternative to seeing the *-e* of *stuṣé* as an infinitive ending, of course, is to take it at face value as the etymological ending of the 1, 3sg. middle. This was the position of Oldenberg a century ago (1901:306–12), and more recently the view of the late J. E. Rasmussen (1985), with whom the modern study of the forms in *-se* can be said to have begun. Rasmussen took *stuṣé* and its congeners to be the continuants of a PIE category that he called the "prospective." This, he said, was a modal formation marked by athematic inflection, *e* : *zero* ablaut, and the mood sign *_-s-_. Reflexes of the active of the prospective, according to Rasmussen, were the Vedic 1sg. injunctive/subjunctive *stoṣam*, the Old Irish unreduplicated future type 3sg. *at·ré* 'will rise' < *_-reg-s-t(i)_, and the Indo-Iranian *si*-imperatives Ved. *stóṣi*, *yákṣi* (: *yaj-*), etc., which he identified with the Old Irish irregular imperative type *at·ré* 'rise!' < *_-reg-s-s(i)_ (cf. Thurneysen 1946:410–1). The *middle* of the prospective—specifically, the paradigm 1sg. *_stu-s-$h_2$éi_, 2sg. *_stu-s-sói_, 3sg. *_stu-s-ói_—was in Rasmussen's view the source of Ved. 1–3sg. *stuṣé*.

This approach had the advantage of accounting for the 1sg. grammatical role of the *-se*-forms without having to posit an earlier infinitival stage. But the hypothesis of a new mood at the PIE level is a huge affront to the principle of Occam's Razor.

[4] Most recently Gotō 2013:135.

[5] The hymn is RV 8.23, where *stuṣe* can be construed as an imperatival infinitive in verse 2 (and is so taken by Geldner [1951]), but is grammatically parallel to the 1sg. finite forms *huve* and *gṛṇe* in verse 7.

[6] *ṛñjasāná-*/*_ṝñjas-_ and 1sg. *ṛñjase* are in fact arguably from different roots, the former being from [1]*ṛj-* and the latter from [2]*ṛj-* (cf. n. 1). *ohiṣe* is the synchronic result of adding *-se* to the athematic present stem *oh-* (cf. ptcp. *óhāná-*); it can have no direct connection to *óhas-* and *óhasāna-*.

[7] On all these forms see further Fortson 2012:100–2, who argues that there was no Vedic infinitive ending *-se* (*-ṣe*) at all.

Vedic 1sg. *stoṣam*, whether properly an injunctive with the full-grade vocalism of a subjunctive or a subjunctive with the secondary ending (*-am*) of an injunctive, clearly belongs to the system of the *s*-aorist; see Narten 1964:277 for the classic discussion.[8] Likewise connected with the *s*-aorist is the *si*-imperative *stoṣi*: as famously expounded by Szemerényi (1966), *si*-imperatives are haplologized 2sg. subjunctives in *_-sasi_/*_-sesi_, mostly from *s*-aorists.[9] The haplology theory was expressly rejected by Rasmussen—a move he thought better of twelve years later, when he reversed his position and all but abandoned the prospective theory (1997:258-9).[10] The third category that Rasmussen cited as a reflex of prospective, the Old Irish unreduplicated *s*-future (*at·ré*), was and is a formation about which we know nothing more than what its name says—that it contained *_-s-_ or *_-se/o-_ and was not reduplicated. This description applies equally well to the Greek future, the Sabellic future (cf. Osc. *deiuast* 'will swear', etc.), and (in part) the Baltic future (Lith. *dúos* < *_-s-t(i)_ 'will give', etc.). In principle, the possibility that Ved. *stuṣé* goes back to an athematic desiderative present (> future) of the Sabellic, Baltic, and (possibly) Old Irish type cannot be altogether excluded.[11] But it is much likelier a priori that the small and narrowly specialized class of *-se*-forms, briefly productive in the *Ṛgveda* but lacking any counterpart in later Vedic or Avestan, was a Vedic innovation.

Our discussion, then, will proceed on the basis of the following assumptions:

1) the morphological formation represented by the type *stuṣé* was a post-PIE creation;
2) the *-e* of the ending *-se* (*-ṣe*) is historically the primary ending of the 1sg. middle;
3) some of the ten attested forms in *-se* are original and others are analogical; and
4) the only *-se*-form that can be safely identified as original, based on its core semantics, morphological simplicity, and frequency of occurrence, is *stuṣé* itself.

Let us now ask a simple question: if *stuṣé* was an innovation, what purpose did the innovation serve? Clearly, some element of meaning was conveyed by *stuṣé* that could not be expressed so well by any other form; what could this have been? The

[8] The combination of full grade and secondary ending, though trivially explainable in more than one way, has given this form an undeserved prominence in the IE speculative literature. See now Kümmel 2012:94–5, *contra* Kortlandt 2004:8 and elsewhere.

[9] The idea is actually already found in Benfey 1852:397. Szemerényi understood the process to be inner-Indo-Iranian, but it is now known to have been of PIE date, and older than the separation of Anatolian from the rest of the family. Cf. most recently Jasanoff 2012.

[10] So I interpret his statement that "[i]n the face of these uncertainties it must be admitted that the limits of the 'prospective' within IE morphology remain indeterminable in the present state of our knowledge and so must be left aside for future reconsideration" (259).

[11] This possibility is in fact pursued by Hill (2004:133–55), who posits a PIE athematic *s*-future of the type 3sg. *_déh$_3$-s-ti_ 'will give', 3pl. *_dh$_3$-s-énti_. It is clear from other evidence, however, that the ancestor of the Baltic and Sabellic forms had Narten ablaut (Jasanoff 2003:133, with references). Hill does not explain why the *-u-* of *stuṣé* is short, given that the desiderative/future morpheme was *_-h$_1$s-_, not *_-s-_.

answer was pinpointed by Rasmussen (1985:392–3), who observed that the function of *stuṣé* is basically that of an instantaneous future or performative—a verb whose action is accomplished by the act of being uttered.[12] It thus means 'I will now praise' or 'I hereby praise' in examples like the invocation RV 1.159.1ab *prá dyā́vā yajñaíḥ pr̥thivī́ r̥tāvŕ̥dhā / mahī́ stuṣe vidátheṣu prácetasā*, rendered by Jamison and Brereton "I shall start up the praise, along with sacrifices, to Heaven and to Earth, the two great ones growing strong through truth, the discerning ones";[13] 6.51.3ab *stuṣá u vo mahá r̥tásya gopā́n / áditim mitrám̐ váruṇam̐ sujātā́n* "I will praise you, the great herdsmen of truth: Aditi, Mitra, Varuṇa, the well-born ones";[14] and 8.84.1 *préṣṭham̐ vo átithim̐ / stuṣé mitrám iva priyám / agním̐* ... "The dearest guest will I praise for you—dear like an ally—Agni ..."[15] Even in cases where *stuṣé* is rendered 'ich *will* preisen' by Geldner, the sense is not desiderative or prospective—this is more typically the value of the subjunctive—but 'I will now praise' or 'let me now praise', with reference to the instantaneous future: cf. 2.20.4ab *tám u stuṣa índram̐ tám̐ gr̥ṇīṣe / yásmin purā́ vāvr̥dhúḥ śāśadúś ca* "I shall praise him—Indra—I shall sing to him, alongside whom long ago they grew strong and exulted";[16] 5.58.1ab *tám u nūnám̐ táviṣīmantam eṣām̐ / stuṣé gaṇám̐ mā́rutam̐ návyasīnām* ... "Now will I praise this (flock) full of power, their Marutian flock of newer (hymns [= thunderclaps]) ...";[17] and 8.7.32 *sahó ṣú ṇo vájrahastaiḥ / káṇvāso agním marúdbhiḥ / stuṣé híraṇyavāśībhiḥ* "O Kaṇvas, for us I will praise Agni along with the Maruts, who have maces in their hands, who have golden axes."[18]

The performative and instantaneous future meanings are expressed by the same morphological category in Vedic. For most verbs of speaking this is the aorist injunctive (cf. Hoffmann 1967:250–4); one has only to think of the familiar 1.32.1a *índrasya nú vīriā́ṇi prá vocam* "Now I shall proclaim the heroic deeds of Indra." For the root *stu-*, however, the "extended performative" function, as we may call it, is expressed by the 1sg. present *stuṣé*. *stuṣé* thus takes the place of a 1sg. injunctive form which, had it been attested, would have been **stóṣi* (cf. 1sg. aor. indic. *astoṣi* [4×]). But no *s*-aorist injunctive forms are attested from *stu-* in the *R̥gveda*—a distributional peculiarity which, like the absence of an active indicative (**ástauṣam*, etc.) and a middle subjunctive (**stóṣai*, etc.), probably points to an earlier stage when the root *stu-* had

[12] Rasmussen uses the German term *Koinzidenzfall*, referring to the "coincidence" of utterance and action.

[13] All Vedic passages are from the *R̥gveda*. It is a pleasure to be able to use the long-awaited translation by our honorand and her co-author (Jamison and Brereton 2014), from which all English glosses are taken if not otherwise noted. Geldner (1951) for this passage has "Ein Lob stimme ich unter Opfern an ..."

[14] Geldner: "Ich preise euch, die Wächter des hohen Gesetzes ..."

[15] Geldner: "Euren lieben Gast preise ich, der beliebt wie ein Freund ist, den Agni ..."

[16] Geldner: "Diesen Indra will ich preisen und loben, an dem sie vordem ihre Stärke und Zuversicht hatten."

[17] Geldner: "Jetzt will ich diese ihre kraftvolle Schar, die marutische, preisen, der Jüngsten ..."

[18] Geldner: "Zusammen mit den Marut, die Keulen in der Hand und goldene Äxte tragend, will ich fein unseren Agni preisen, ihr Kanviden."

no *s*-aorist at all.[19] This is also suggested by the fact that no aorist is formed by the cognate root *stauu-* in Avestan.

Avestan also sheds light on our problem in a more substantial way. The absence of an aorist comparable to Ved. *stoṣ-* in Avestan is made up for, so to speak, by the fact that the verb *stauu-* has two presents. One of these is the familiar Narten present OAv. *stāumī* (= post-RV *staumi*) 'I praise', ptcp. *stauuat-*, YAv. *staomi*, *staoiti* (generalized full grade), mid. *staoite*, *staomaide*, etc., with secondarily thematized byforms 3sg. subj. *stauuāt̰*, 2sg. opt. *stauuōiš*, etc. The other present, easily confused with the first, is seen in the 1sg. middle form *stuiiē* (< **stuu̯ai*), mostly in ritual formulas with the preverbs *ā*, *us*, and *fra*. Typical passages for *stuiiē* are Y 1.21 *yezi θβā diduuaēša* ... *ā tē aŋhe fraca stuiiē* "si je t'ai nui ... je fais pour toi l'éloge-préliminaire" (Kellens 2004:286);[20] Y 11.17 (= 0.4) *frastuiiē humatōibiiascā hūxtōibiiascā huuarštōibiiascā mąθβōibiiascā vaxəδβōibiiascā varštuuōibiiascā* "Je fais l'éloge préliminaire (du sacrifice et du chant) au moyen de (pensées) qui ont été bien pensées ... au moyen de (pensées) qui seront (bien) pensées ..." (285);[21] Y 12.2 *us gāuš stuiiē tāiiāatcā hazaŋhatcā* "Ich schwöre ab dem Diebstahl und Raub des Rindes";[22] Y 12.3 *nəmaŋhā aṣ̌āi uzdātā̊ paitī auuat̰ stuiiē* "Bei den unter Verehrung für Asha aufgesetzten (Zaothra's) gelobe ich das: ..." (followed by the vow); Y 12.8–9 *āstuiiē humatəm manō āstuiiē hūxtəm vacō āstuiiē huuarštəm šiiaoθanəm / āstuiiē daēnąm māzdaiiasnīm* "Ich schwöre mich ein auf den gutgedachten Gedanken, ich schwöre mich ein auf das gutgesprochene Wort, ich schwöre mich ein auf die gutgetane Handlung, ich schwöre mich ein auf die mazdayasnische Religion." The usual view of this form, starting with Narten 1968:17, is that it shows the common analogical substitution of zero grade for full grade in the "weak" stem of an acrostatic paradigm. Apophonic renewal of this type is well documented, both in general and in the specific case of the Narten present IIr. **stāu̯-*. Secondary zero grades are uncontroversially on hand in Ved. 3pl. *stuvánti*, pres. ptcp. *stuvánt-* (for expected **stávati*, **stávat-* [< **stéu̯-n̥t-*]), and YAv. 2, 3sg. opt. *°stuiiā̊*, *°-iiāt̰* (for expected **stauuī-*). In

[19] *LIV* (600) hesitantly sets up a PIE *s*-aorist on the strength of Ved. *astoṣi*, but the gaps in the Vedic distribution, the absence of extra-Indic cognates, and the rarity in general of old *s*-aorists beside root presents give grounds for skepticism. In my view, the two sets of sigmatic forms—the active subjunctive (*stoṣat*, *-ṣāma*, etc.) and the middle indicative (*astoṣi*, *-oṣṭa*, etc.) originally had little or nothing to do with each other. *stoṣa-* looks like it was once a free-floating subjunctive of the same type as *śróṣa-* (: *śru-* 'hear'), originally perhaps associated with a Narten *s*-present, but derivationally unaffiliated with any synchronic present or aorist in Indo-Iranian proper. *astoṣi*, on the other hand, was apparently the inner-Indic replacement of **ástavi*, the historically expected 1sg. corresponding to the 3sg. "passive" aorist *ástāvi* (cf. below). For the sigmatization process compare **ábudhi* → *ábhutsi* (: 3sg. *ábodhi* 'awoke'), **ávidi* → *avitsi* (: 3sg. *avedi* 'was found'), **ásr̥ji* → *asr̥kṣi* (: 3sg. *ásarji* 'was released'), etc.; see further Narten 1964:26 and Jasanoff 2003:207. Interestingly, neo-*s*-aorists of the *ábhutsi*-type share with *astoṣi* the property of lacking an injunctive in the *R̥gveda*.

[20] Reading **āat̰ tē* for *ā te*. The formula is repeated, with *vō* for *te*, in Y 1.22. Kellens's translation supersedes Bartholomae's "(so) preise und lobe ich dich dafür."

[21] Bartholomae apud Wolff 1910: "Ich verpflichte mich feierlich (darauf, daß) gut gedacht und gut gesagt und gut getan (wird alles), was zu denken und zu sagen und zu tun (ist)."

[22] This comes from the *Frauuarānē* (Zoroastrian Creed), as do the following examples. Translations are from Bartholomae/Wolff.

the 2sg. impv. both languages have zero grade (cf. Ved. *stuhí*, YAv. *°stūiδi*), suggesting that here, at least, the imperative _*studhí_ 'praise!' may go back to Indo-Iranian times, if not to Proto-Indo-European itself.

But *stuiiē* does not look like such a secondarily "zero-graded" form. The rest of the middle paradigm of *stauu-* has full grade: cf. 3sg. *°staoite*, *staota*, 1pl. *°staomaide*, ptcp. *stauuăna-*, matching Ved. 3sg. *stáve*, ptcp. *stávāna-* (+ thematized *stávate*, etc.).[23] While it is common in cases of analogical change to find renewed and unrenewed forms side by side, it is hard to see why zero grade should in this instance have been introduced *consistently* into the 1sg. of the middle and nowhere else. Formulas meaning "I swear" or "I forswear" are the last place one would expect to find a specifically innovated form; compare Eng. *I do solemnly swear*..., with the 17th-century use of *do* persisting to the present day. I submit, therefore, that *stuiiē* is an archaism, the sole remaining trace in Avestan of an Indo-Iranian present middle whose paradigm in the singular, distinct from the "Narten" middle _*stáu̯ai_, etc., would have been 1 _*stuu̯ái_, 2 _*stušái_, 3 _*stuu̯ái_. The earlier existence of such a paradigm is independently suggested by the fact that the root *stu-* forms a passive aorist *ástāvi* in Vedic. Indo-Iranian passive aorists are linked via an IE derivational process to middle root presents of the "stative-intransitive" type in 3sg. _*-ái_ (< dialectal PIE _*-ói/*-ór_);[24] the pattern is familiar from pairs like aor. *ávedi* 'came to light, etc.' : pres. 3sg. *vidé*, aor. *áceti* 'shone forth' : pres. 3sg. *cité*, aor. (*ví*) *śrāvi* = OAv. *srāuuī* 'was heard' : pres. OAv. 3sg. *sruiiē*, and others involving non-Indo-Iranian material.[25] Young Avestan 1, *3sg. *stuiiē* beside Ved. *ástāvi* fits perfectly into this picture, as do perhaps also the marginal Vedic zero-grade middle forms 3sg. opt. *stuvītá*, 1pl. opt. (*prá*) *stuvīmahi*, and especially ptcp. *stuvāná-* (paired with *gr̥ṇāná-*). Decisive comparative evidence for a zero-grade middle root present comes from two other branches of the family: Anatolian, where Hitt. *ištuwāri* 'becomes publicly known' can only go back to a preform _*stuu̯ór_; and Germanic, where, as I have argued, OHG *stuēt* 'atones for, confesses' < _*stuwaiθ_ conceals an older preform 3sg. _*stuwai_ < _*-ói_.[26]

If Proto-Indo-Iranian inherited both a Narten middle _*stáu̯ai_, _*stáušai_, etc. and a zero-grade middle _*stuu̯ái_, _*stušái_, etc., the two must somehow have contrasted in meaning. While we have no direct information on this point, it would be natural to suppose that the zero-grade paradigm, as the derivative of a PIE root aorist,[27] would have had a more "perfective" set of meanings than its Narten counterpart, possibly coinciding with the present-like uses of the Vedic aorist injunctive described by Hoffmann (1967:135–45 and 250–4). The performative use of YAv. *stuiiē* ('I hereby (for)swear', etc.) would be consistent with this hypothesis. Let us provisionally assume, therefore, that IIr. 1sg. _*stuu̯ái_ had performative value as well, and that when this form was lost in Vedic its functional slot was filled by the enigmatic 1sg. *stuṣé*. The contribution of Avestan to the problem of *stuṣé* is thus to suggest that whatever the exact morphological history of the Vedic form, *it was the replacement of an Indo-Iranian 1sg.* *stuu̯ái.

The task of explaining *stuṣé* can thus be seen as the problem of understanding how and why a Vedic form that "should" have surfaced as _*stuvé_ (< _*stuu̯ái_) was sigmatized to yield the actually attested *stu-ṣ-é*. Framing the problem in these terms opens the way to a new solution. *stuṣé*, it will be recalled, is not the only sigmatic form in Vedic without a counterpart in Avestan; the *s*-aorist *astoṣi*, *-ṣṭa*, along with its subjunctive (*stóṣa-*) and *si*-imperative (*stoṣi*), is similarly isolated. It is not unlikely that these facts are related. At the outset of its inner-Indic history, pre-Vedic _*stuvé_ would have formed a functional minimal pair with the true "prospective," the subjunctive *stávā*, mid. *stávai*:

pres. _*stuvé_ 'I (will) now praise' : subj. *stávā*, *-ai* 'I intend to praise'.[28]

But the relationship of *stuvé* to *stávā*, *-ai* would have been subtly altered by the creation of the *s*-aorist *stoṣ-* (cf. n. 19). With an aorist in the picture, there would have been *two* subjunctives, one (*stóṣā* [*ṇi*]) aligned with the aorist and meaning 'I intend to praise, start praising', and the other (*stávā*, *-ai*) aligned with the Narten present and specifically imperfective: 'I intend to be praising' *vel sim.*[29] Schematically:

	:	aor. subj. *stoṣā* 'I intend to praise'
*stuvé 'I (will) now praise'		
	:	pres. subj. *stávā*, *-ai* 'I intend to be praising'.

The functional-formal mismatch is significant. In the meaning 'I (will) now praise, I hereby praise', _*stuvé_ had the synchronic value of an aorist injunctive (cf. above); yet from a formal point of view it would have appeared, owing to its lack of *-ṣ-*, to be associated with the imperfective present stem. The creation of *stuṣé*, I suggest, was

[23] Vedic also has a handful of zero-grade forms, on which see below.

[24] Here as elsewhere, I maintain the view that the primary middle endings were characterized by the *hic et nunc* particle _*-r_, which was replaced in some IE branches, including Indo-Iranian, Greek, and Germanic, by the active *hic et nunc* particle _*-i_.

[25] The Indo-Iranian pattern is discussed, though against the background of different assumptions, by Kümmel (1996:9–21); for the IE context see Jasanoff 2003:169–73.

[26] The family of OHG *stuēn* and Go. *stojan* 'judge' is the subject of Jasanoff 2014, updating an earlier discussion of *stuēn* in Jasanoff 2003:170 and briefly anticipating the analysis of *stuṣé* below.

[27] I.e. the h_2e-conjugation root aorist ancestral to Ved. *ástāvi*.

[28] Needless to say, the two meanings were very close; the forms must have been virtually interchangeable in some contexts. Crucially, however, there were also contexts in which they were *not* interchangeable, and speakers found it useful to maintain the difference.

[29] Prior to the introduction of the *s*-aorist, the subjunctive *stáva-* would have been the subjunctive both of the Narten present (imperfective) and the zero-grade present (perfective). With the creation of the *s*-aorist, the perfective function was transferred to the aorist subjunctive *stóṣa-* (whether or not this was originally based on an *s*-present, as suggested in n. 19). Most of the relevant 1sg. subj. forms are actually attested: pres. act. *stávā* (2×), mid. *stávai* (3×), aor. act. *stóṣāṇi* (1×); cf. also YAv. mid. *°stauuāne* (Vd. 19.7). There is no 1sg. mid. _*stóṣai_, since the aorist subjunctive of *stu-* is *activum tantum*.

a response to the need to provide the aorist subjunctive *stóṣā* with a performative counterpart that, so to speak, looked the part.

The process can be envisaged in either of two similar ways. Under one possible scenario, **stuvé* 'I (will) now praise' would have been felt to require more explicit marking as an aorist, and was directly remade to *stuṣé*. Under the other scenario, a transitory distinction would have been introduced between more and less "aoristy" readings of **stuvé*, via a proportion *stávā* : **stuvé* :: *stoṣā* : X, where X was solved as *stuṣé*. Either way, the sigmatized form *stuṣé* provided a better "fit" with the role of a performative/immediate future and replaced the older form. A trace of the *s*-less zero-grade present stem may survive in ptcp. *stuvāná-*.

If this picture is correct, the form *stuṣé* would have been a 1sg. from the very beginning, created in response to the need of speakers (or possibly just of poets) for a more transparent extended performative to take the place of the older 1sg. **stuvé* (= YAv. *stuiiē*). The advent of *stuṣé* set off a string of further developments. First, the ending *-se* was extended to the 1sg. of other presents meaning 'praise', 'sing', 'attend to', etc.; the new forms (*gṛṇīṣé*, *arcase*, *ohiṣe*, etc.) had the same value as their model. Second, and more interestingly, the use of *stuṣé* was in a few cases extended from the 1sg. to the 3sg.—a reflection, ultimately, of the accidental identity of the 1sg. middle ending *-e* < **-h₂ei* with the 3sg. "stative" (i.e. passive) ending *-e* < **-oi*. As a 3sg., *stuṣé* means 'will now be praised, is to be praised', as in 1.122.7a *stuṣé sá vāṃ varuṇa mitra rātír* "This gift of yours is to be praised, Mitra and Varuṇa" and 8.63.3 *sá vidvā́m̐ áṅgirobhiya / índro gā́ avṛṇod ápa / stuṣé tád asya paúṃsiyam* "Indra, knowing how, uncovered the cows for the Aṅgirases. That manly act of his is to be praised."[30] The obligational meaning evident in these and similar passages, which under ordinary circumstances would have been expressed by an aorist injunctive, is exactly what would have been expected from the displacement to the 3sg. of a form that *did* pattern as an aorist injunctive in the 1sg. But the syntax of *stuṣé qua* passive, especially when it retained its accent in pāda-initial position as in 1.122.7, could lead the Vedic poets to construe it, as many later scholars have done, as an infinitive. We thus find 8.4.17cd *ná tásya vemi áraṇam hí tád vaso / stuṣé pajrā́ya sā́mane* "I do not pursue (anything) of his—for that is alien, o good one, (and it is) for Pajra Sāman to praise," where an infinitival analysis of *stuṣé* is compelled, at least synchronically, by the dative agent *pajrā́ya sā́mane*. The passage is discussed by Keydana (2013:239–40), who judges it the only verse in the *Ṛgveda* where a nominal interpretation of *stuṣé* is unavoidable.[31]

[30] So too Geldner, in both passages. Genuinely difficult is 10.93.9ab *kṛdhí no áhrayo deva savitaḥ / sá ca stuṣe maghónām*, which Geldner takes as a 3sg. ("Mache, daß wir uns nicht zu schämen brauchen, Gott Savitri, und der unter den Lohnherren soll gepriesen werden") but Jamison and Brereton read as a 1sg. ("Make for us immoderation (of wealth), god Savitar. I will praise (you?) in company with our patrons"). Sgall (1958:182) takes unaccented *stuṣe* in this passage as an infinitive.

[31] Cf. Geldner: "Nicht wünsche ich dessen Besitz, denn das ist fremdes Gut, du Guter, das für Pajra Saman zu preisen ist." It can hardly be an accident that this and a high proportion of the other passages in which *stuṣé* is potentially an infinitive or otherwise problematic (e.g. 8.5.4, 8.23.2, and 8.24.1) are in Book 8.

For those fond of looking for analogies between linguistic and biological evolution, the *-se*-forms offer abundant material. The PIE root **steu-* had a zero-grade present middle (3 sg. **stuu̯ó(r)*; cf. Hitt. *ištuwāri*, PGmc. **stuwai[þ]*), distinct from the Narten full-grade middle (3 sg. **stéu̯o(r)*; cf. Ved. *stáve*, Gk. στεῦται 'declares, boasts'). Under pressure from the full-grade forms, the zero-grade paradigm was confined to peripheral uses in Indo-Iranian; a specific instance of this was the specialization of 1sg. **stuu̯ái* (> YAv. *stuiiē*) as an extended performative. In Vedic, where IIr. **stuu̯ái* would have become **stuvé*, an analogical change—a "mutation," so to speak—converted this to *stuṣé*, with an *-ṣ-* that made the form more transparent, and hence easier to learn and pass on to later generations. In the period of expansion that followed, the newly viable *stuṣé* spread into new environmental niches (3sg. and infinitive) and gave rise to new forms or "species" (*gṛṇīṣé*, etc.). This is the situation as we find it in the *Ṛgveda*, and it is also the point at which Darwinian comparisons can tastefully be dropped. Over the long term, the forms in *-se* showed themselves to be grammatical dinosaurs, leaving no trace in the later Samhitas.

Abbreviations

LIV = Kümmel, Martin, and Helmut Rix (eds.). 2001. *Lexikon der indogermanischen Verben: Die Wurzeln und ihre Primärstammbildungen*. 2nd ed. Wiesbaden: Reichert.

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Gothic Verbal Mood Neutralization Viewed from Sanskrit*

BRIAN D. JOSEPH

One of the methodological aspects of Indo-European studies that has made it such a successful enterprise is the way practitioners have typically recognized that data from the far reaches of the family must be taken into account and that such data can have consequences for solving puzzles in the individual branches that otherwise resist a solution. Karl Verner demonstrated this dramatically in 1877 with his discovery that the position of Vedic Sanskrit accent shed light on the hitherto puzzling *grammatischer Wechsel* of Germanic. And it is perhaps no accident that Verner called on Sanskrit to illuminate the Germanic facts, since Sanskrit has always held a special place in the study of the Indo-European family. And since Sanskrit, and more particularly Vedic, is the specialty of the honorand, and since she has contributed so much to our understanding of Sanskrit in itself and in the broader Indo-Iranian and Indo-European context,[1] it is appropriate to invoke this language here and to make use of it in shedding light on yet another detail of Germanic, one not as significant as that which Verner dealt with but one that represents an otherwise unexplained fact nonetheless. Accordingly, in what follows, I lay out the Germanic facts and show how a comparison with Sanskrit can pave the way towards greater understanding of a particular Germanic syntactic construction.

The construction in question is found in Gothic and can be illustrated by the representative examples given in (1) and (2):

(1) iþ saei nu gatairiþ . . . jah laisjai
if he.who now relax.3SG.IND and teach.3SG.SBJV
"if whoever who relaxes . . . and (then) teaches" (Mt. 5:19)

* I would like to thank Brent Vine for the extremely helpful comments he provided on an earlier version of this paper, all of which served to improve it enormously.

[1] I first met Stephanie in 1975, when I was a graduate student and she was a visitor at Harvard, and I have followed her career carefully ever since, learning from and enjoying her research and making use of it in my classes, especially when I have had the chance to teach the history of Sanskrit. It is my great pleasure to be able to take part in this honoring of her.

(2) ƕa matjam aíþþáu ƕa drigkam aíþþáu ƕē wasjaima?
what eat.1PL.IND or what drink.1PL.IND or how dress.1PL.SBJV
"What shall we eat? Or, what shall we drink? Or, in what way shall we be dressed?" (Mt. 6:31)

In this construction, as seen in (1) and (2), two or more verbs that are linked in some way (being found for instance in coordinate or disjunctive structures), and that are controlled syntactically in the same way (occurring for instance in an indefinite relative clause or a deliberative question), so that they therefore might well be expected to show the same modality, instead show a mismatch in mood, with the first verb(s) occurring in the indicative mood and the last in the subjunctive mood (also known as the "optative").[2]

This construction is a legitimate feature of Gothic syntax, and not merely a Greek feature transposed into Gothic through the process of rendering the Greek original into Gothic. That is, the corresponding passages in the Greek show subjunctive for all the verbs in question, rather than just for the last one; (3a) and (3b) give the Greek prototypes for (1) and (2), respectively:

(3) a. *ὃς ἐὰν οὖν λύσῃ . . . καὶ διδάξῃ*
who if then loosen.3SG.SBJV and teach.3SG.SBJV
b. Τί *φάγωμεν· ἤ,* Τί *πίωμεν· ἤ,* Τί *περιβαλώμεθα;*
what eat.1PL.SBJV or what drink.1PL.SBJV or what dress.1PL.SBJV

Thus the absence of nonindicative modality on all but the last verb in such instances reflects a deliberate decision on the part of the Gothic translator. Such cases can be referred to as "mood neutralization", since they involve the neutralization of the indicative-subjunctive modal contrast in Gothic into the indicative form of the nonfinal verb(s); an indicative verb is functioning in a subjunctive context aided and abetted by a subjunctive it is linked to in some way.

Interestingly, and perhaps somewhat curiously, this mood mismatch is not noted in most handbooks of Gothic, even those that have some treatment of syntax; for example, there appears to be no mention of it in Braune–Ebbinghaus 1973, in Wright–Sayce 1954, in Guxman 1958, in Bennett 2006, nor in Kotin 2012. And in those that do mention it, it is given only a very superficial or rather non-explanatory account. For instance, Mossé (1956:184), in discussing Matthew 6:31 (example (2) above), says that the subjunctive here "alterne avec l'indicatif, marquant peut-être un effet stylistique," though without specifying what that "stylistic effect" is or why it would be employed here; and Feuillet (2014:102), following Mossé, says "le subjonctif alterne avec l'indicatif sans raison apparente. Mossé (1956:184) cite cet exemple curieux [Mt. 6:31]

[2] This Gothic mood derives formally from the Proto-Indo-European optative but has uses reminiscent of the subjunctive in other languages so that either label can be justified; sources seem to be more or less split as to whether to label this mood an "optative" or a "subjunctive".

où rien ne justifie apparemment le changement de mode." Lambdin (2006:134), in his discussion of mood, simply draws attention to instances such as (1a), in which "two verbs [that] are temporally sequential show an unusual feature, in that only the second verb is placed in the subjunctive," but offers no explanation for it.

The construction does receive some attention in the older more specialized literature, but again not in a particularly satisfactory way. Several 19th-century scholars, in particular Köhler (1872), Erdmann (1873), and Bernhardt (1877)—cited by Streitberg (1920:207)—saw in the use of the optative in such sentences an indication of a dependent, almost subordinate, status for the last conjunct, perhaps involving some "distancing" (Bernhardt: "entferntere handlung"). Exactly what sort of subordination is involved here is not clear, nor what "distancing" would mean in this context, i.e. a particular type of subordination or something temporal or just what. Streitberg himself (op. cit.) is properly skeptical of these accounts, following Mourek 1893 in this regard.

Besides examples like (1) and (2) that involve the neutralization of mood forms found in the Greek original, there is another type of mood mismatch between Greek and Gothic. Lambdin (2006:134), for instance, further notes examples where the "Gothic translator shows a tendency to introduce the subjunctive in the second element of a double question, apparently feeling a subordinate relationship (conditional, causal, purpose) between the two clauses not apparent in the Greek," as in (4):

(4) ƕas satjiþ weinatriwa jah akran þize ni matjai
who plant.3SG.IND vines and fruit their not eat.3SG.SBJV
"Who plants vines and then does not eat their fruit?" (1 Cor. 9:7)

In this latter type, the Greek has two indicative verbs (thus *φυτεύει* 'plants' ... *ἐσθίει* 'eats' corresponding to the verbs in (4)), so that the introduction of a subjunctive in the Gothic, rather than the neutralization of a subjunctive, is what is innovative vis-à-vis the Greek original.

Thus there are both cases of mood neutralization, where Gothic fails to observe mood forms found in the corresponding Greek prototype, and cases of mood introduction, where the nonindicative mood in the Gothic is at odds with what is found in the Greek. The mood introduction seems to be a case of more nuance being added into the translation than appears to be present in the original, and may well involve interpretation on the part of the translator, as Lambdin suggests.[3]

However, the mood neutralization remains unexplained, and while it could likewise involve a translator's interpretation, the fact that it is synchronically somewhat opaque—a status that the difficulties scholars have had accounting for it would seem to suggest—might point to the need to approach it from a diachronic perspective,

[3]That is, at least in the original as we have it now; it is always possible that Wulfila in working on his translation was looking at a slightly different Greek text from the canonical version and variants now available to us.

and seek a historical explanation for the synchronic oddity. An explanation of this sort that is more historically oriented was put forth by Davis (1929), and it is of more interest as well from the Indo-European angle. While perhaps overreaching somewhat in its treatment of the Indo-European sources of various mood uses in Gothic, Davis's proposal nonetheless points the way to such a historical explanation. He seeks to account for numerous functions of the Gothic indicative, including volitive and future uses, as survivals of the Proto-Indo-European injunctive, a verbal form "having secondary endings but no augment and used without distinction of tense or mood" (1929:427), and he includes examples such as (1) and (2) in his catalogue of Gothic indicative functions to account for.[4] It can be argued that this account goes too far in two ways: first, the future use of a present indicative is probably so typologically ordinary that it does not need an explanation in deep historical terms that refers to a Proto-Indo-European construct,[5] and second, volition does not seem to be among the typical uses of the Indo-European injunctive, to judge from its use in Vedic Sanskrit (cf. Hoffmann 1967, Kiparsky 2005). Despite these objections, invoking the injunctive turns out to offer a basis for understanding the Gothic construction in (1) and (2), once the appropriate injunctive properties are focused on.

In particular, there is one interesting fact about the Vedic injunctive that is noteworthy in this regard. That is, in Vedic, injunctives, which have no inherent tense or mood and are unmarked morphologically for these categories, co-occur in sequences with verbs that are overtly marked for tense and/or mood and have a tense or modal meaning appropriate for the verb they are connected to. Thus one finds injunctives sequenced with imperatives, as in (5a), with subjunctives, as in (5b), and with optatives, as in (5c):[6]

(5) a. píbā imám édám barhíḥ sado máma
drink.2SG.IMP this on-this grass sit.2SG.AOR.INJ my
"Drink this! Sit here upon this ritual grass of mine." (RV 8.17.1bc)
b. kadā nú antár váruṇe bhuvāni ...
when now within Varuna.LOC be.1SG.SBJV
kadā mṛḷīkáṁ sumánā abhí khyam (RV 7.86.2b, 2d)
when mercy well-minded upon look.1SG.AOR.INJ
"When shall I be within Varuna? ... When shall I, with good thoughts, look upon his mercy?"

[4]Davis gives a few other examples beyond those given here, including Lk. 17:8, Jo. 6:53, and 1 Cor. 11:29. It is unclear if these plus (1) and (2) constitute the entirety of the mood neutralization examples.

[5]Compare English uses such as *I leave for Paris tomorrow*, where the adverb allows the ostensible present verb to have a future interpretation.

[6]Similar examples occur in Vedic of the injunctive sequenced with overtly tensed forms, but instances are given here only of relevant mood forms, given the focus on Gothic mood neutralization. The Rigvedic translations here are from Jamison and Brereton 2014; naturally, I am especially pleased to be able to make use of this excellent work here.

c. só asmai cāruś chadayad utá syāt (RV 10.31.4d)
he him.DAT beloved seem.3SG.INJ and be.3SG.OPT
"That one seems beloved to him and so he should be."

This Vedic injunctive usage has an exact parallel with the Gothic construction in that there is neutralization of mood through the use of the injunctive; the injunctive carries a certain modality in the presence of an overtly mood-marked verb that it is connected to. That is, the injunctive itself, being inherently moodless, takes its mood from the mood marking of a verb associated with it in a given syntagm. The Gothic equivalent of the injunctive here would be the simple present indicative, as unmarked a verb form as the Gothic system permits. It is thus the Gothic indicatives that are special in sentences such as (1) and (2), not the subjunctives. Davis is therefore correct in looking to the Indo-European injunctive for the seeds of the indicative usage of (1) and (2) and the several other examples like them in Gothic, but it is the particular mood-and-tense sequencing characteristics of the injunctive that make the comparison, and thus the explanation, compelling.

To be sure, there are differences between the Vedic injunctive sequencing and the Gothic mood neutralization. For one thing, the Vedic usage comes up in sequences both with tensed verbs and with modally marked verbs, while this Gothic usage is more limited. But such a limited instantiation of this construction in Gothic could be a function of the nature of the texts (Bible translation) or of the limited extent of the texts; more likely, perhaps, is that this usage is truly a remnant, just barely holding on in Gothic. Second, as (5b) shows, in Sanskrit the injunctive (*khyam*) can follow the mood-marked verb (*bhuvāni*), whereas in Gothic the neutralized verb seems always to precede. This ordering difference is perhaps connected to the freer nature of ordering of words in Vedic, where factors such as meter and focus that are absent in Gothic play a role in phrasal and sentential word order. Alternatively, it could have to do with differences in basic word order between the two languages, Vedic being essentially verb-final (SOV) and Gothic not, though admittedly it is not clear why a difference with the positioning of mood-neutralized verbs would depend on the basic positioning of the verb. It does not seem that the translation process could be responsible here, because the translator presumably would have had a choice, if the option were available, to make the final verb in a sequence indicative and an earlier one subjunctive. So presumably the ordering differences between Vedic and Gothic mood neutralization in verb sequencing are to be taken seriously, even if an answer as to why there are such differences is not readily forthcoming.

One final, methodologically important, caveat must be voiced. There is some potential for taking these developments to be independent innovations in each language, since shifts involving mood or other types of verbal categories in verbal sequences are not all that uncommon. In Gothic itself, for instance, there is the mood-introduction phenomenon mentioned briefly above, which, while it may involve nuances of interpretation on the part of the translator, on the surface presents exactly an innovation in mood marking in a sequence of verbs. And in colloquial American English, one can hear utterances such as *[he will pout] as opposed to letting it go and move on*, where standard usage would be ... *letting it go and moving on*, again offering a reduction of verbal marking in one of a set of coordinated verbs.[7] Moreover, such developments are not restricted to Indo-European languages. In Maragoli, a Bantu language of Kenya, for instance,[8] coordinate structures apparently occur in which one verb has overt morphological marking and the other lacks those markings altogether. Thus there may be a certain naturalness to this sort of neutralization that makes independent innovation difficult to rule out entirely.

Still, differences and caveats aside, this Gothic construction, labeled as "unusual" by Lambdin 2006 and "sans raison apparente" by Feuillet 2014, as noted above, makes more sense once it is viewed in the broader Indo-European context that comparison with Sanskrit affords. Seen from this angle, it represents a precious archaism in Germanic of what is likely to be a feature of Proto-Indo-European syntax of mood expression with the injunctive.

Abbreviations

Braune–Ebbinghaus 1973 = Braune, Wilhelm. 1973. *Gotische Grammatik mit Lesestücken und Wörterverzeichnis.* 18th ed. revised by Ernst A. Ebbinghaus. Tübingen: Niemeyer.

Wright–Sayce 1954 = Wright, Joseph. 1954. *Grammar of the Gothic Language and the Gospel of St. Mark, Selections from the other Gospels, and the Second Epistle to Timothy with Notes and Glossary.* 2nd edition with a supplement to the grammar by O. L. Sayce. Oxford: Clarendon.

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[7] This statement, which I heard while listening to a television broadcast, was uttered by one of the announcers of the NBA playoff game between the Oklahoma City Thunder and the Los Angeles Clippers on Friday, May 9, 2014. See also Zwicky 2014 for discussion of what he calls "coordination-off-the-mark", an example of which is "Are you 65 or older and suffer from back pain?" (where the tense-marked "... and do you suffer" would be expected by many speakers, Zwicky and myself included).

[8] I base this on information I received from Brent Vine about work he learned of (via p.c.) by John Gluckman and Margit Bowler of UCLA on the language.

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Observations sur l'intercalation du Hādōxt Nask dans le Yasna

JEAN KELLENS

L'édition du Nirangistān par Firoze M. Kotwal et Philip G. Kreyenbroek (1992–2009) a permis de constater la pratique, dans le rite zoroastrien antérieur au Xe s., de l'intercalation du Hādōxt Nask (HN) dans les chapitres gâthiques du Yasna (Kreyenbroek 2008:88–90). A la suite, Alberto Cantera (2013:105–6) a pu conjecturer que l'insertion de HN1 se situait après l'*Aṣ̌əm Vohū* introductif (Y27.14) et celle de HN2 après la dernière Gâthâ (Y53). Ce m'est un plaisir de faire à Stephanie Jamison l'hommage amical de ces quelques réflexions supplémentaires.

1 L'*Aṣ̌əm Vohū* et le Hādōxt Nask

La situation que Cantera attribue à HN1 se justifie pleinement du fait qu'il s'agit d'une sorte de commentaire de l'*Aṣ̌əm Vohū*, dont je rappelle préalablement le texte, avec une traduction en mot à mot:

aṣ̌əm vohū vahištəm astī	Le bon Aṣ̌a est très bon,
uštā astī uštā ahmāi	*uštā* est *uštā* pour lui,
hiiaṯ aṣ̌āi vahištāi aṣ̌əm	ce qui signifie qu'Aṣ̌a est pour le très bon Aṣ̌a.

HN1 met l'*Aṣ̌əm Vohū* en rapport avec le thème de la mort, dont se chargera HN2, en attribuant l'avant-dernière place en ordre de mérite croissant à la récitation *ustəme uruuaēse gaiiehe* « au dernier tournant de la vie » (Kellens 2010:58–61).[1]

2 Le rapport de l'*Aṣ̌əm Vohū* avec Y43.1 et le Y51

Le deuxième syntagme de l'*Aṣ̌əm Vohū, uštā astī uštā ahmāi*, est une référence évidente aux deux premiers mots de Y43.1, première strophe du texte qui, selon HN2.2 (répété par 4 et 6), assure d'abord la sérénité du défunt, puis le conduit au salut:

[1] L'ultime et suprême récitation est étrangement indéterminée, mais la restriction à la mauvaise triade pensée-parole-action et la substitution de *fra* + *uruuis pairi* + ablatif à *niž* + *bar* pour exprimer son rejet pourrait évoquer la séparation finale des bons et des méchants à l'entrée de l'au-delà (ibid. n. 49).

uštā ahmāi, yahmāi uštā kahmāicīṯ
vasə̄.xšaiiąs, mazdā̊ dāiiāṯ ahurō
utaiiūitī, təuuīšīm gaṯ.tōi vasəmī
aṣ̌əm dərəidiiāi, taṯ mōi dā̊ ārmaitē
rāiiō aṣ̌īš, vaŋhə̄uš gaēm manaŋhō

« A souhait pour celui, quel qu'il soit, à qui le Maître Mazdā, qui le peut s'il le veut, accorde le souhait! Mon souhait à moi, c'est aller au rajeunissement et à la force, et c'est soutenir l'Agencement. Donne-moi cela, ô Juste-pensée: que la vie de la bonne Pensée soit des envois de richesse! »

Si le premier syntagme de l'*Aṣ̌əm Vohū, aṣ̌əm vohū vahištəm astī*, est, comme le second, une référence textuelle, on ne peut le rapporter qu'à Y51.20b *aṣ̌əm vohū*. Une clôture serait alors établie du début de la Gâthâ *uštauuaitī* à la fin de la *vohuxšaθrā*, plus précisément son antépénultième strophe.

3 Les reflets de Y43.1 et du Hādōxt Nask dans le Y51

Dans la première partie du Y51 (1–11), les trois strophes successives 6, 7 et 8 accumulent les parallèles terminologiques à Y43.1 et au Hādōxt Nask:

a. Y51.6 c′ *apə̄mē aŋhə̄uš uruuaēsē* « lors du dernier tournant de l'état-d'existence » évoque HN1 *ustəme uruuaēse gaiiehe* cité ci-dessus. Sans doute, *ahu-* n'est pas le synonyme exact de *gaiia-*, mais il le devient en portant la qualification *juuaṇt-* (HN2.2. etc. *juiiō aŋhuš*) et, d'ailleurs, *gaiia-* est mentionné dans Y43.1 e′ *vaŋhə̄uš gaēm manaŋhō*.

b. Y51.7 c *təuuīšī utaiiūitī* renvoie à la première proposition infinitive régie par *vasəmī* (Y43 cc′ *utaiiūitī təuuīšīm gaṯ.tōi*).

c. Y51.8 b′c *uštā yə̄ aṣ̌əm dādrē huuō zī mąθrā śiiātō* « …*uštā* pour celui qui a toujours soutenu l'Agencement! Celui qui connaît le *mąθra* est tranquille… » combine la citation de *uštā*, un parallèle à la seconde proposition infinitive (*aṣ̌əm dərəidiiāi*) et l'évocation de l'état qui, selon HN2.2 etc., exprime la sérénité du défunt (*śāiti-*: gén. sing. *śātōiš*).[2]

4 La seconde partie du Y51 et le récit de HN2

La seconde partie du Y51 (12–22) consiste majoritairement en un catalogue des noms-propres comme il en existe un, et un seul, dans chaque Gâthâ. Les quatre premières strophes semblent dresser une topographie de l'au-delà, mentionnant successivement le « pont de l'hiver » (12 a′ *pərətāu zimō*),[3] le « pont de l'amasseur » (13 b′ *cinuuatō*

[2] On peut aussi s'interroger sur la possible concordance entre le *xšaθra* « Pouvoir », qui est la préoccupation prégnante du Y51, et Y43.1b *vasə̄.xšaiiąs*.

[3] Incertain, car ce motif isolé a disparu de la tradition ultérieure.

pərətāu), la « maison de la Tromperie » ou enfer (14 c′ *drūjō dəmānē*), et la « maison du chant d'accueil » ou paradis (15 b *garō dəmānē*).[4]

Dans les strophes suivantes, les mots *daēnā-* (17 et 19) et *cisti-* (16 et 18), qui désigne à la fois l'apparition lumineuse de l'aurore et l'illumination mentale, alternent avant d'être réunis (21).

Dans le même passage, à chaque personnage[5] est attribuée une action qui peut être perçue comme un élément du processus salvateur conté par HN2. La *cisti* qui illumine Vīštāspa a pour teneur 16 c′ *aθā nə̄ sazdiiāi uštā* « que l'*uštā* nous apparaisse! » ou « que l'*uštā* soit récité par nous! ». Plus crûment encore, « Fərašaoštra Huuōguua montre mon corps apprécié (*ou* le corps apprécié de moi) à la bonne Daēnā » (17 aa′b *bərəxδąm mōi fərašaoštrō, huuō.guuō daēdōišt kəhrpə̄m, daēnaiiāi vaŋhuiiāi*).[6] L'homme donné en exemple au(x) Maidiiōi.mā̊ŋha(s) Spitāma(s) est « celui qui, par sa *daēnā*, trouve l'état-d'existence » (19 bb′ *daēnaiiā vaēdəmnō yə̄ ahūm*).[7]

En conduisant inéluctablement à l'hémistiche 20b fondateur du premier syntagme de l'*Aṣ̌əm Vohū*, le Y51 apparaît comme une paraphrase de Y43.1 nourrie des ingrédients qui composeront HN2. Ceci nous invite à considérer qu'il est à l'origine le récitatif d'un rite funéraire et que l'auteur du Hādōxt Nask le savait parfaitement. Il le savait parce que la doctrine eschatologique que son récit traduit en actes explicites était en possession de ses traits essentiels lors de la composition des Gâthâs, si bien qu'il y a continuité entre le rite ancien du Y51 et le rite récent du Yasna avec insertion du Hādōxt Nask.

5 Autour du Y51

Il faut aussi scruter l'environnement du Y51. Les lumières du soleil, dont l'auteur de Vr 19.2 a relevé la présence dans l'avant-dernière strophe du Y50 (10 c *raocā̊ x^və̄ṇg*), peuvent être considérées comme celles du lever[8] pour camper, comme le fait V19.28 dans la cérémonie Vidêvdâd, le décor auroral de la rencontre des deux âmes. Et le mariage de celles-ci est assimilé, dans le Y53, à celui de l'aurore et de son père le soleil. On peut se demander si le projet d'introduire le Hādōxt Nask dans la récitation du Yasna n'est pas la raison immédiate de la sélection et de l'articulation des deux Gâthâs monohâtiques, la funéraire (Y51) et la matrimoniale (Y53), à la fin du corpus gâthique.

Selon les trois descriptions que l'Avesta lui-même en ait préservées (Y57.2–8, Y57.19–26 et Yt10.88–94; Kellens 2012:55–7), le rite du Yasna pouvait ne pas comporter la récitation complète de ce que nous appellons aujourd'hui l'Avesta ancien.

[4] En vieil-avestique, désigne peut-être l'aire sacrificielle.

[5] On ne peut se prononcer sur Də̄jāmāspa, dont la strophe (18) est mal compréhensible, en partie à cause de l'unique attestation vieil-avestique, au pluriel, de *x^varənah-*.

[6] Il faut noter que la variante du récit de HN2 donnée par Vyt8 se présente comme un *frašna* atypique dont l'interrogateur est Frašaoštra.

[7] Sur *ahu-*, voir ci-dessus. *gaiia-* est aussi attesté dans cette strophe (c′ *gaiiehiiā*).

[8] Mais il semble que, dans le rite propre de la Gâthâ *spəṇtā.mainiiu*, ce soit celles du zénith.

L'intercalation de HN implique la présence de l'*Aṣ̌əm Vohū*, de la Gâthâ *uštauuaitī*, peut-être de la *spəṇtā.mainiiu* à cause de Y50.10, du Y51, et du Y53, mais non de la Gâthâ *ahunauuaitī* et du Yasna Haptaŋhāiti.

Alberto Cantera situe l'intercalation de HN2 après le Y53 parce que c'est la place des textes parallèles du V19 et du Vyt8 dans les rites respectifs où ils sont introduits. La raison est bonne, mais il y aurait aussi une logique à ce qu'il ait été inséré entre le Y51 et le Y53. Il assumerait ainsi le pouvoir « briseur d'obstacle » que le second Yasna Haptaŋhāiti exerce dans d'autres variantes de la cérémonie (Vr 20.2; Kellens 2011:46–7) et le chant du mariage des deux âmes apparaîtrait comme l'apothéose du salut.

6 Le rite du Yasna selon HN 2.13

> *yaṯ tum ainim auuaēnōiš saocaiiaca kərənauuaṇtəm baosauuasca varaxəδrāsca varōžiṇtəm uruuarō.straiiąsca kərənauuaṇtəm āaṯ tum nišhiδōiš gāθåsca srāuuaiiō apasca vaŋ^{v}hīš yazəmnō ātarəmca ahurahe mazdå narəmca aṣ̌auuanəm ⁺kuxšnuuąnō asnāaṯca jasəṇtəm dūrāaṯca*
>
> « Chaque fois que tu as vu un autre faire monter la flamme et les [. . .], étendre les branches et (en) faire des jonchées végétales, tu te mettais à réciter les Gâthâs, à sacrifier aux bonnes eaux et au feu (fils) d'Ahura Mazdā, à réjouir l'homme partisan de l'Agencement, qu'il vienne de près ou de loin ».

Il passe pour acquis que la Daēnā oppose ici les actes peccamineux de quelqu'un désigné comme « autre » à la vertueuse piété de son interlocuteur Uruuan. Mais l'interprétation péjorative des locutions participiales de la subordonnée ne repose que sur deux indices troubles: la traduction pehlevie, dont le rapport avec le texte avestique est insaisissable,[9] et le reflet que *saoc(a)iia°* semble offrir à Y32.14 *saocaiiaṯ*, qui définit un traitement inadéquat du haoma, mais dans un contexte qui ne fait pas apparaître clairement si la condamnation est absolue ou circonstancielle.[10]

HN2.13 présente par ailleurs une singularité qui m'est apparue en 1995 (loc. cit., puis 2012:57): c'est le seul passage avestique qui mentionne les trois textes composant le Yasna postgâthique, la Dahmā Āfriti (Y60), l'Ātaš Niyāyišn (Y62), et l'Āb Zōhr (Y63–70), traduits en actes et disposés en *hysteron proteron*. Compte tenu de ce facteur, la phrase tout entière semble décrire la structure générale du Yasna dans la visée du rite Hādōxt, en distinguant deux parties:

1. Un « autre » procède à la phase préliminaire, qui consiste à allumer le feu et à

[9] Une description précise par Andrea Piras (2000:98–102).

[10] Ce reflet a inspiré l'interprétation globalement haomique de Karl Hoffmann (1976:611–2) dans son article sur l'optatif prétérital. Il semble que « faire flamber » le haoma (*suc*: *saocaiia-*) signifie le laisser pur, selon l'opposition védique entre le soma *śúci-* et le soma *dádhyāśir-* « mêlé de lait » (Kellens 1995:27–8). *baosauuas°* est inaccessible à toute analyse et le rapport entre le haoma et les jonchées végétales n'est traité nulle part ailleurs dans l'Avesta. De toute manière, il n'y a aucune évidence qu'il s'agisse ici du haoma.

disposer la jonchée rituelle, ou à la phase haomique, qui s'achève soit avec le Y33 si la Gâthâ *ahunauuaitī* est récitée, soit avec le Hōmāst, donc l'*Aṣ̌əm Vohū* de Y27.14 suivi de HN1.

2. L'Uruuan entame ensuite sa partition, d'abord son chant de salut commençant par la Gâthâ *uštauuaitī*, puis, après l'interruption de Y53–HN2 (ou vice-versa), les chapitres finaux de la cérémonie.

A la suite de quoi (HN2.14), Ahura Mazdā peut constater l'exécution d'un « long Yasna » (*darəγō.yašti-*) avec intercalation (*hąm.paršti-*).

Si cette hypothèse est correcte, HN2.13 décrit la distribution de la charge de récitation entre deux officiants, le premier présenté comme aussi « autre » qu'un vivant peut l'être pour un mort, le second prêtant sa voix à l'Uruuan. L'itérativité des optatifs prétéritaux *auuaēnōiš* et *nišhiδōiš* serait alors limitée à la répétition du rite chacune des trois nuits où l'âme stagne « entre le cadavre et le paradis ».

Les trois textes postgâthiques mentionnés par HN2.13 attestent la même succession de trois composés à second terme *°bərəiti-* : *hubərəiti-* « bonne offrande », *ušta.bərəiti-*, *vaṇta.bərəiti-* (Y60.6, Y62.1 et 7, Y68.14). Christian Bartholomae (1904:418 n. 2) avait pressenti que, sous l'apparente banalité de la traduction « gewünschte Darbringung », *ušta.bərəiti-* pouvait dissimuler autre chose : « Oder vielleicht Darbringung des Wortes '*ušta*' und der damit beginnenden Strophe (Y43.1) ». Oui, mais le premier terme de *vaṇta.bərəiti-* est quant à lui le dernier mot de Y51.22 et pourrait signifier « offrande du mot *vaṇta* et de la strophe qui s'achève par lui » (Redard et Kellens 2013:11). Les strophes Y43.1 et Y51.22 délimitent le chant funèbre de l'âme, partie gâthique qu'enserrent les intercalations de HN1 et de HN2. L'Avesta-Ausgabe, qui passa si longtemps pour une épave hasardeuse, est un bon témoin de la continuité de ses liturgies.

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Hittite *dapi-* 'all, whole, each'

SARA KIMBALL

Hittite *dapi-* and *dapiant-* have been described as "synonyms," "near synonyms," or "quasi-synonyms" of *ḫūmant-* 'all, whole, each'.[1] Indeed, in some instances *dapi-* or *dapiant-*[2] in one copy of a text corresponds to *ḫūmant-* in another copy, a situation that does suggest quite close synonymy. There has been little discussion of why the copies might differ in such instances, however, beyond the occasional observation that *dapi-* and *dapiant-* seem more recent than *ḫūmant-*.[3] *Dapi(ant)-* first shows up in texts from the reign of Muršiliš II both in Neo-Hittite originals and in duplicates or revisions of Neo-Hittite or earlier exemplars. The evidence suggests that it is from colloquial language.

Many of the Neo-Hittite originals in which *dapi(ant)-* occurs are the kinds of texts, including oracle reports, letters, cult inventories, and depositions, that were not normally extensively copied or revised. One genre of NH original texts in which *dapi(ant)-* shows up are reports of KIN (lot) oracles where it often modifies ZI (*ištanza-*) 'soul, will', for example:

KUB 5.1+ ii 72

3-*ŠU* ^{LÚ}KÚR-*za* MÈ *dapin-a* ZI-*an* ME-*aš n-aš* ^{LÚ}*ari* SUM-*za* SIG₅

"Third: The enemy took for himself battle and the whole soul. They are given to the friend. Favorable."

KUB 6.3 i 16–7

. . . *INA* UD.2.KAM LUGAL-*uš-za* ZAG-*tar* (17) TI-*tar pangurr-a* ME-*aš nu-kan* DINGIR^{LIM}-*ni dapī* ZI-*ni*

"On the second day, the king took for himself right, life, and *p.* To the whole soul."

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[1] For example, Tischler 1991:127, Puhvel 1991:380.

[2] Although Josephson (2004:112–3) claims that *dapiant-* has the special force of 'each and every', *dapi-* and *dapiant-* seem to be synonyms. For example, both modify *udne* 'land, country' and no particular difference in meaning stands out (e.g. *dapiaš* KUR-*eaš* 'in all lands' KUB 31.136 ii 1, *dapiza* KUR-*e-za eḫu* 'from each land, come!' KUB 15.35 + KBo 2.9 i 7 beside [KUR]-*eaš dapi⟨an⟩daš* DI-*eš*[*šar*] 'lawsuits of all lands' KUB 36.18 ii 11). Both also modify *šiwanneš* 'gods' (e.g. *ANA* DINGIR^{MEŠ} *dapiaš* 'to all the gods' KUB 25.22 iii 5, iii 8 beside UGU-*azziuš* DINGIR^{MEŠ} *dapiante*[*š*] 'all the upper-world gods' KUB 17.14 rev.! 17). In parallel passages from the Ḫantitaššu ritual series describing a feast organized by the Sungod for all gods and humans, one text, KBo 11.14 i 24, uses *dapi-* (*dapiuš* DINGIR^{MEŠ}-*u*[*š*]) and another, KUB 58.94 i 4, uses *dapiant-* (*dapian⟨du⟩uš* DINGIR^{MEŠ}) in the expression 'all (of the) gods'.

[3] For example, Hoffner 1972:24, Ünal 1996:53, Puhvel 1991:380, and Tischler 1991:127.

Dapi(ant)- also occurs (beside *ḫūmant-*) in KIN oracle reports in non-formulaic contexts, for example:

> KUB 5.1 iii 61–2
>
> $^{\text{LÚ.MEŠ}}$*Gašga*$^{\text{ḪI.A}}$*-ma-an-kan* (62) *dapianteš* GAM UGU RA*-anzi*
> "All the Kaskeans will strike (the town of Tamaliya) up from below."

> KUB 18.12 + 22.15 obv. i 4–5
>
> *man-ma-šmaš* DINGIR$^{\text{MEŠ URU}}$KÙ.BABBAR*-an* URU*-an ŠA* ^{D}U ^{URU}*Ḫalap ANA* ^{D}UTU^{ŠI} MUNUS.LUGAL ŠE$_{12}$*-uwanzi* (5) [*d*]*apiaz tak⟨ša⟩an malān ḫarteni*
> "If you gods have jointly approved Ḫattušaš, city of the Storm god of Ḫalap, in all respects for his majesty and the queen to winter in . . ."

According to Beal (2002:76–80) KIN oracles were probably Anatolian inventions. They were hastily written observations not normally edited or recopied (Beckman 1999:684).

Another genre of NH originals in which *dapi(ant)-* occurs are letters, which were presumably taken down by dictation. *dapian* in KUB 18.40, a letter from the king to an unknown addressee, seems comparable to *ḫūmant-* in meaning 'everything':

> KUB 18.40 i 6
>
>] *dapian iwar* LUGAL K[UR *Kargamiš* . . .
> "[Do?] everything as the king of Kargamiš (wants it done?)."

KUB 19.23 is a letter from Tudḫaliya IV to his mother, Puduḫepa, and the passage with *dapiant-* concerns a rebellion in Lalanda threatening the Lower Lands. Here *dapian*, qualified by the particle *-pat*, means 'just the whole of Lalanda' as opposed to the rest of the Lower Lands. The text is quite rough; Heinhold-Krahmer, who edited it, remarks that it has a number of erasures (1977:311):

> KUB 19.23:17–20
>
> . . . *nu-kan mān* KUR ^{URU}*Lala*[*nda*] (18) [*d*]*apian-pat lagāri nu-nnaš-at* GEŠPÚ$^{!}$-*uwaš* I[NIM] (19) *man-ma-kan* KUR$^{\text{ḪI.A}}$ *ŠAPLI⟨TI⟩-ma lagāri nu-nnaš*[*a-at*] (20) *UL manqa i*[*yau*]*waš*
> "If just the whole land of Lalanda falls, it will be a matter of fighting for us. But should the Lower Lands fall, there would be nothing at all for us to do."

dapi(ant)- also shows up in cult inventories, which record an effort to catalog provincial cult paraphernalia and practices and institute repair and replacement when necessary.[4] The process involved collection of data, including inventories of cult paraphernalia, descriptions of statues, and oral and written descriptions of ritual practices at the various locales surveyed. Information was recorded on clay tablets and

[4] For the dating of these texts see Hazenbos 2003:11–5 and Cammarosano 2012.

reported back to the central administration at Ḫattušaš, where decisions were made about changes. According to Hazenbos (2003:209–14), some of the extant texts may be reports of completed changes, while others specify planned changes, and still others report a mixture of completed and planned changes. Hazenbos suggests that texts mentioning planned changes may be interim reports on work in progress. As such, they presumably were not edited as extensively as texts intended for long-term storage and consultation. But even texts that seem to describe reforms that had been carried out may not have been final, official drafts; for example, Hazenbos (2003:30) notes that the scribe doodled on one (214). KUB 25.23, one text with *dapiant-*, contains a significant number of scribal errors, missing and partial signs, and numerous erasures, suggesting that it may be a very rough draft:

> KUB 25.23 i 19–20
>
> ḪUR.SAG*-iya kuēš* URU$^{\text{DIDLI.ḪI.A}}$ *araḫzanda nu-za* NINDA KAŠ *dapi⟨an⟩za* (20) *udai*
> "What towns (are) around the mountains, all bring bread (and) beer."

> ib. iv 56
>
> nu 1 ^{DUG}*ḫuppar* KAŠ *tagan dapian laḫuwanzi*
> "They pour one entire *ḫ.*-vessel onto the ground."

dapi- and *dapiant-* both occur in KBo 12.3, a text from the reign of Šuppiluliuma II. *dapiya* in i 24 is in a broken context, but a nominative-accusative plural neuter of *dapiant-* appears in better preserved context beside *panku-* toward the beginning of the text:

> KBo 12.38 i 3–6
>
> (3) × TA DAM^{MEŠ}*-ŠU* DUMU^{MEŠ}*-ŠU*
> (4) *ēppun* SIG$_5$*-uwa dapi⟨an⟩da*
> (5) [*IŠTU* KÙ.BABBAR G]UŠKIN *pangauēšš-a* NAM.RA^{MEŠ}
> (6) [× × *ḫuet*]*tiyanun*
> "[PN (the king of Alašiya?)] with his wives, his children, [and his . . .], all the goods, [with silver, g]old, and all the captured people I [re]moved."

Güterbock (1967:81) considered the text a Hittite version of Hieroglyphic Luvian inscriptions. Column one, where both forms appear, Güterbock explained as an account of Šuppiluliuma's father Tudḫaliya's battle with Alašiya (Cyprus). *Panku-*, at least to judge from the entries in the *Chicago Hittite Dictionary* (Hoffner and Güterbock 1997:88–90), though a synonym of *ḫūmant-* and *dapi(ant)-*, seems to modify words for groups of people more often than it modifies words for inanimate objects or concepts. Perhaps the scribe felt that *panku-* was a natural choice for quantifying groups

of people while *dapiant-* was more appropriate for describing materials. The passage would not appear odd, however, if *panku-* and *dapiant-* were replaced by *ḫūmant-*.

dapi(ant)- also occurs in texts in Neo-Hittite script that are duplicates or parallels of other Neo-Hittite texts or of texts that go back to a Middle or Old Hittite exemplar. Such texts encompass a range of genres, including rituals, festivals, and historical and mythological texts. Often, the use of *dapi(ant)-* in these texts looks like a sporadic, relatively superficial modernization. For example, one copy of the Ritual at the Border (CTH 422), a text in Neo-Hittite that goes back to a Middle Hittite exemplar,[5] KUB 4.1, uses *ḫūmant-* throughout,[6] but its duplicate, KUB 31.146, has *dapiant-*, though it is a very small fragment. Both texts are in Neo-Hittite writing:

> KUB 4.1 i 19–22
>
> *nu kāša* ^{D}*Zitḫariyaš* DINGIR^{MEŠ}*-naš* (20) *ḫūmandaš aruīškezzi* (21) *nu-šma-šan DINAM arnuškezzi nu-šši* DINGIR^{MEŠ} (22) *ḫūmanteš DINAM ḫannatten*

> KUB 31.146 obv. 3–6
>
> [*nu kāša* ^{D}*Zitḫariyaš*] DINGIR^{MEŠ}*-aš dapi⟨an⟩taš*) (4) [*aruīškezzi*] *nu-šma-ššan DINAM* (5) [*arnuškezzi nu-šši* DINGIR]^{MEŠ} *dapianteš DINAM* (6) [*ḫannatten*...]
>
> "Look, Z. keeps pleading before all the gods. He keeps bringing suit before them. Decide the case for him, all (you) gods!"

In two passages from copies of the Apology of Ḫattušili, *ḫūmant-* in KUB 1.1+ corresponds to *dapiant-* in copies. Ištar is speaking to Puduḫepa in a dream in both passages:

> KUB 1.1+ iv 10–1 (= CTH 81 A)
>
> ...*nu-wa-za-kan* ^{URU}KÙ.BABBAR*-aš ḫūmanza* (11) *IŠTU ŠA* ^{LÚ}*MUDIKA neyari*
>
> "...And all Ḫattuša will be turned to (the side of) your husband."

The duplicate, KUB 1.9 (= CTH 81.H) 17 has *da-pi-a*[*n-za*, but the tablet breaks off here.

In the second passage, Ištar boasts that she has turned all of Ḫatti to Ḫattušili's side in his fight against Urḫi-Tešup:

> KUB 1.1 + 26.44 iv 21–3 (= CTH 81.A)
>
> ...KUR.KUR^{M}]^{EŠ} ^{URU}KÙ.BABBAR*-ti-ma-wa-k*[*an*] (22) *ḫūmanda* ^{D}IŠTAR *ANA* ^{M}*Ḫat*[*tušili andan* (23) *neḫḫun*
>
> "I, Ištar, have turned all the lands of Ḫatti to Ḫattušili."

---

[5] Hoffner 1972:34.

[6] Dative plural *ḫūmandaš* i 3, 6, 7, 11, 26, 28.

The duplicate KUB 1.8 iv 9 (= CTH 81.M) replaces *ḫūmanda* with *dapianta*:

> KUR.KUR^{MEŠ} ^{URU}KÙ.BABBAR-]*ti-ma-wa dapianta* ^{D}IŠTAR *IŠTU* $^{\text{M.GIŠ}}$*ÙPA-li-ILI*^{LIM} *ne*[*ḫḫun*

In other places, *dapi(ant)-* in a copy appears to be part of a more extensive revision. For example, in paragraph 46 of the Law Code *dapian* is found in the late Neo-Hittite copy, KBo 6.5. This paragraph concerns the obligations for performing *luzzi* incurred by someone holding land through an inheritance:

> KBo 6.5 iv 24–6
>
> *takku* URU*-ri*! *šaḫḫanaš* A.ŠÀ$^{\text{ḪI.A}}$ *iwa*[*ru kuiški ḫarzi*
> *takku* A.ŠÀ$^{\text{ḪI.A}}$ *dapian piya*[*n luzzi karpzi*
> *takku* A.ŠÀ$^{\text{ḪI.A}}$ ⸢*te*⸣-⸢*e*⸣-⸢*pa*⸣-⸢*u*⸣-⸢*i*⸣-⸢*eš*⸣? *pi*[*yanteš luzzi UL*? *karpzi*
>
> "If in a village, someone holds fields of *šaḫḫan* as an inheritance, if the fields have been given entirely, (s)he does *luzzi*. If the smaller (part) of the fields(s) have been given (s)he does not (??) perform *luzzi*."

Unfortunately, the Old Hittite copy KBo 6.2 and the post-Old Hittite copy KBo 6.3 are poorly preserved here, and the modifier of A.ŠÀ$^{\text{ḪI.A}}$ 'lands' is broken off in the parts of these texts that discuss someone holding enough land to incur an obligation to perform *luzzi*; but the earlier version does not mention holding the fields in their entirety:

> OH KBo 6.2 ii 38–9
>
> *takku* URU*-ri* A.ŠÀ$^{\text{ḪI.A}}$*-an iwāru kuiški ḫarzi takku-šše* A.ŠÀ^{Ḫ}[$^{\text{I.A}}$ *mekkiš*] (39) *piyanza luzzi karpiezzi takku-šše* A.ŠÀ$^{\text{ḪI.A}}$*-ša*! *te-*[*e-pu-uš piyanza*] (40) *luzzi natta karpiyezzi*
>
> "If in a village someone holds lands as an inheritance share, if the [larger part of] the land has been given to him/her, (s)he shall render the *luzzi*-services. But if the sm[aller part] of the land [has been given] to him/her, (s)he shall not render the *luzzi*-services."

The late parallel text, KBo 6.4 iv, contrasts the obligations of those who hold lands in their entirety with those who do not, but it uses *ḫūmant-*:

> KBo 6.4 iv 21–4
>
> *takku* URU*-ri* A.ŠÀ$^{\text{ḪI.A}}$*-an šaḫḫann-a iwaru kuiški ḫarzi* (22) *takku*-šši A.ŠÀ$^{\text{ḪI.A}}$*-uš ḫūmanza pianza luzzi karpzi* (23) *takku-šši* A.ŠÀ$^{\text{ḪI.A}}$*-uš ḫūmanza ŪL pianza teppu-šši* (24) *piyan luzzi ŪL karpzi*
>
> "If in a village someone holds land and obligation to perform *luzzi*-services as an inheritance share, if the land was given to him in its entirety, he shall render the

luzzi-services. If the land was not given to him in its entirety, but only a small portion was given to him, he shall not render the *luzzi*-services."[7]

Muwatalli's prayer to the assembly of gods through the Storm god of Lightning is preserved in two major copies, KUB 6.46 and KUB 6.45, as well as in smaller fragments. Singer (1996:135–42) argues that although both texts were written during the reign of Muwatalli, KUB 6.46 is a rough draft while KUB 6.45 is a corrected and revised version that was proofread and edited by a third scribe. KUB 6.46, Singer notes (121), shows numerous erasures and mistakes in spelling and sign use that suggest it is a copy from dictation. Forms of the *i*-stem *dapi*- occur twice in the prayer, and both texts also use *ḫūmant*- in various places. An ablative *da⟨pi⟩az* is found in KUB 6.46 i 19,[8] the conclusion of an invocation of the gods of various locations that otherwise uses *ḫūmant*-.

KUB 6.46 i 16–20

. . . DINGIR.LÙ$^{ME.EŠ}$ DINGIR.MUNUS$^{ME.EŠ}$ *ḫūmantes* ḪUR.SAG$^{ME.EŠ}$ (17) [*ŠA* KUR ^{UR}]^{U}*Ḫatti ḫūmanteš* EN$^{ME.EŠ}$ DINGIR$^{ME.EŠ}$ EN$^{ME.EŠ}$ ^{D}UTU ^{URU}TÚL-*na* (18) GAŠAN-*YA Ù* DINGIR$^{ME.EŠ}$ *ḫūmanteš ŠA* KUR ^{URU}*Ḫatti* EN$^{ME.EŠ}$ ^{LÚ}SANGA-*az* (19) *kuedaš ŠA* KUR ^{URU}*Ḫatti-mu-kan* EN-*UTTA da⟨pi⟩az* (20) *kuiēš memi-uštẹn* (sic)

". . . all the male gods (and) the female gods, all the mountains of the land of Ḫatti, (my) lords. Divine lords—Sun goddess of Arinna, my lady, and all the gods of the land of Ḫatti, (my) lords—whose priest I am, who have conferred upon me from (among) all (others), the rulership over Ḫatti." (or ". . . in every respect . . .")[9]

The parallel passage KUB 6.45+ i 15–9 has *ḫūmandaz*:

. . . DINGIR.LÙ^{MEŠ} DINGIR.MUNUS^{MEŠ} *ḫūmanteš* ḪUR.SAG^{MEŠ} (16) ÍD^{MEŠ} *ŠA* KUR $^{URU.GIŠ}$*Ḫatti ḫūmanteš* EN^{MEŠ} DINGIR$^{ME.EŠ}$ ÍD$^{ME.EŠ}$ EN$^{ME.EŠ}$ (17) ^{D}UTU ^{URU}TÙL-*na* GAŠAN-*YA Ù* DINGIR ^{MEŠ} *ḫūmanduš ŠA* KUR ^{URU}KÙ.BABBAR-*ti* (18) EN^{MEŠ} ^{LÚ}SANGA-*az kuedaš ŠA* KUR ^{URU}*Ḫatti-mu-kan* (19) EN-*UTTA ḫūmandaz kuiēš memišten*

If this passage contained the only example of *dapi*- in KUB 6.46, the scribe of KUB 6.45's editorial change might be taken as an indication that he found *ḫūmant*- more appropriate than *dapi*-. However, 6.46 iii 35 has *nu-mu-kan* [DINGIR$^{ME.EŠ}$-*aš d*]*a*[*p*]*iaš uwayanut* 11Intercede for me with all the gods!" For his part, the scribe of 6.45 retained *dapiaš* but shifted it to the end of the clause, perhaps as an emphatic

[7]See Hoffner 1997:54–6 for restorations and translations.

[8]See Singer 1996:32 for the reading.

[9]For the translation see Singer 1996:31 with n. 126.

tag, giving *nu-mu-kan* DINGIR^{MEŠ}-*aš uwayanut dapiaš* "Intercede for me with the gods, all of them!" in iv 4. Such a shift is paralleled by similar shifts of *ḫūmant*-.[10] The scribe of 6.45's changes suggest that he wanted to improve on 6.46's style, but did not necessarily regard its use of *dapiaš* as inappropriate.

The use of *dapi(ant)*- beside *ḫūmant*- in roughly contemporary copies indicates that we should be careful in analyzing places in Neo-Hittite texts that reflect earlier exemplars in which *ḫūmant*- and *dapi(ant)*- are used side by side. It cannot automatically be assumed that the use of *dapi(ant)*- was the result of a scribe's decision to introduce contrast.

One such passage is from KUB 33.118, a fairly small, fragmentary text in Neo-Hittite script. Mt. Wašitta, a pregnant volcano, starts smoking, which attracts the attention of all the neighboring mountains who start questioning her (lines 14–6).[11] Here *ḫūmant*- modifies ḪUR.SAG^{MEŠ} 'mountains':

. . . *nu-šši* ḪUR.SAG^{MEŠ} *ḫ*[*ū*]*manteš uw*[*a*]*nna* (15) [*p*]*aer* $^{ḪUR.SAG}$*Wāšitta* ḪUR.SAG^{MEŠ} *ḫūmanteš memiškeuwan dāer*

"All the mountains went to see her. All the mountains started speaking to Mt. Wašitta."

Wašitta's reply, however, introduced in lines 19–20, uses *dapi*-:

. . . $^{ḪUR.SAG}$*Wāšittaš d*[*ap*]*iaš* ḪUR.SAG^{MEŠ} (20) [EG]IR-*pa memiškeuwan dāiš*

"Mt. Wašitta started speaking to all (of the other) mountains."

Since Wašitta is rather defensive about her predicament, claiming to have been raped by a stranger, it could be that *dapiaš* ḪUR.SAG^{MEŠ} has the marked sense of 'to each and every mountain', perhaps indicating Wašitta's emotional state, and is opposed to the unmarked *ḫūmant*- elsewhere, but this seems unlikely.

KUB 33.118 does not have duplicates, but other texts with duplicates suggest that apparent contrasts may be illusionary. KBo 11.14 is from a Neo-Hittite version of the ritual of Ḫantitaššu with Middle Hittite origins:

KBo 11.14 i 24–5

^{D}UT]U-*uš-za* EZEN-*an* DÙ-*at nu-za dapiuš* DINGIR^{MEŠ}-*u*[*š*] ⸢*ḫal*⸣-⸢*za*⸣-⸢*a*⸣-⸢*iš*⸣ (25) [*nu-z*]*a ḫūmandan* ⸢DUMU.LÚ.ULU^{LU}-*an*⸣ ⸢*ḫal*⸣-⸢*za*⸣-⸢*a*⸣-⸢*iš*⸣[12]

"You, the Sun god have organized a banquet. To (this banquet) you have invited all gods, and you have invited all mortals."

[10]For example, KBo 5.8 iii 32–3 (Annals of Muršiliš) ERÍN^{MEŠ}-*ma-šši-kan* ANŠU.KUR.RA^{MEŠ} *ḫūman arḫa daḫḫun* "But I took away his troops, cavalry, everything," or KBo 32.23 obv. 63 (Ritual of Allaiturahi) *nu* É-*er* É.[Š]À$^{HI.A}$ ^{É}*ḫilan šuppiaḫi* "She cleans the house, the inner chambers, the courtyard, everything."

[11]See van Dongen 2012:38–9 with references for a discussion of this text.

[12]For the restorations see Ünal 1996:18 with nn. 18 and 19.

According to Ünal (1996:14–6), this ritual is preserved in at least five different versions adapted for kings or other sick people. *Ḫalzaiš* 'invited' at the end of each line is barely visible, and Ünal (1996:18 n. 18) describes his reconstructions as based on context and as "very conjectural." However, both ***dapiuš*** and ***ḫūmandan*** are clearly visible on the autograph copy of KBo 11.14. This passage is part of an invocation in which the ritual practitioner, addressing the Sun god, describes a festival, or banquet, to which all gods and all humans are invited, though at first, the patient treated in the ritual is excluded. The patient is later let in to the party after the gods have had a discussion about his or her absence. Arguably, ***dapiaš*** DINGIR^{MEŠ} could be read as 'each and every god' as opposed to ***ḫūmandan*** DUMU.LÚ.ULU^{LU}-an 'all humanity', but such a contrast seems forced.

Two parallel texts preserve variants of this passage, but only one, KUB 58.94, is preserved well enough for any conclusions to be drawn. The relevant passages on KUB 58.94 both use ***dapiant-***, suggesting that the scribe who produced this version of the ritual did not understand any intended contrast:

KUB 58.94 i 8–9

nu-wa-za dapianduš DINGIR^{MEŠ} ***ḫalziḫḫ[un]*** (9) ***nu-wa-za dapianduš*** DUMU^{MEŠ} LÚ.ULÙ^{LU} ***[ḫalziḫḫun]***
(The patient is speaking) "I have invited all gods and I have invited all mortals."[13]

The *i*-stem ***dapi-*** is found beside ***ḫūmant-*** in a passage from KUB 58.101, a substitution ritual prepared in connection with a dream of Tudḫaliya III about rituals for the Sun goddess of Earth in Ḫattušaš:

KUB 58.101 obv. iii? 2–7[14]

... ***(kuin zašḫi)]yaz*** (3) ***[(memian memiš)]ta*** (4) ***[nu-tta k]āša ḫūmandaz*** (5) ***[(arḫa š)ar]ninkuwēn*** (6) ***[(wēš G)]IM-an dapiza arḫa*** (7) ***[šarn]inkuwēn***
"(You, Sun goddess of Earth), whose message you have spoken with the dream, look, we have compensated you completely. As we have compensated you completely . . ."

This ritual is a Neo-Hittite compilation adapted from earlier materials.[15] The passage is part of an address to the Sun goddess of Earth, and after pointing out that restitution has been made completely, it goes on to ask for a quid pro quo. ***dapiza*** 'completely' in iii 6 seems simply to be a repetition of ***ḫūmandaz*** in iii 4.

The use of ***dapi(ant)-*** in oracle reports, letters, and cult inventories suggests that by the 13th century it was a synonym of ***ḫūmant-*** that was freely used in writing

[13] See also ib. i 4, which has ***nu-za dapian⟨du⟩š*** DINGIR^{MEŠ} ***ḫalza[iš*** . . .

[14] For the restorations, see Taracha 2000:75 and cf. the parallel text HT 76 (+) Bo 6678 iii 12–5 (ib. 62.)

[15] See Taracha 2000:163–7 on the dating of the whole ritual.

that recorded relatively speech-like content. Evidence from duplicate or parallel texts where a scribe substituted one for another seems to suggest that they were regarded as stylistic variants. The extended stem ***dapi(yant)-*** often—though not inevitably—behaves like an adjective rather than a quantifier in that it precedes the noun it modifies, and this difference in word order may have been part of the stylistic variation.

Morphologically, the declension of ***dapi-*** resembles that of ***nakkī-*** 'weighty, honored, valuable' in that it has nominal inflection with a suffix that does not ablaut:

	dapi-	nakkī-[16]
nom. sg. c		na-ak-ki-(i)-iš
acc. sg. c.	da-pi-n, da-pi-an	na-ak-ki-in
nom.-acc. sg. n.	da-pi	na-ak-ki-(i)
gen sg.	da-pi-aš	
dat. sg.	da-pi-i, da-pi	na-ak-ki-ya, na-ak-ki-i
abl. sg.	da-pi-za, da-pi-az	na-ak-ki-ua-az
inst. sg.		na-ak-ki-it
nom. pl. c.		na-ak-ki-i-e-eš
acc. pl. c.	da-pi-uš	na-ak-ki-uš
nom.-acc. pl. n.	da-pi-ya	na-ak-ki-i
gen. pl.	da-pi-aš	
dat.-loc. pl.	da-pi-aš	na-ak-ki-i-ya-aš

Sturtevant (1934:266) first suggested that ***dapi-*** might be from IE ****d^{h}eb-*** with a meaning something like 'weighty', and this seems to be the most likely etymology.[17] A related Proto-Anatolian ****dobro-*** is found in Cuneiform Luvian ***tapar-*** 'rule, govern' and the Hittite royal title ***tabarna-/labarna-***, which was borrowed from Luvian.[18] The only cognate from outside of Anatolian is the Germanic adjective ****dapra-*** in OHG ***dapfar***, MLG ***dapper*** 'heavy, strong', and ON ***dapr*** 'sad'.[19] Primary verbal cognates for the Anatolian and Germanic words have not been preserved, but the etymology is attractive semantically; a parallel within Hittite would be ***panku-*** 'all, entire, complete, every' beside Skt. ***bahú-*** 'thick' and Gk. ***παχύς*** 'id.'.

Germanic ****dapra-*** and Luvian ****dobro-*** point to an Indo-European adjective ****d^{h}obro-*** meaning something like 'heavy' or 'possessing gravitas'. At first glance, the *i*-stem ***dapi-*** looks like it might be in a Caland-system relationship to this adjective.

[16] For the forms, see Hoffner and Güterbock 1989:364–8.

[17] See also Kimball 1999:270. Tischler (1991:126–8) is skeptical.

[18] See Melchert 1994:230, 231, 252, 253 and Yakubovich 2010:229–32.

[19] See Orel 2003:68 and Pokorny 1959:239. Slavic ****dobrŭ*** in OCS ****dobrŭ***, and ****debelŭ*** 'fat' in OCS ***debelyj*** are not related (Derksen 2008:110, 97–8), and Toch. A ***tsopats*** 'big', ***tpär*** 'high', B ***tappre*** 'id.' are probably from ****d^h(e)ub-*** (Adams 2013:296).

However, the nominal declension of ***dapi-*** may suggest that it was not originally an adjective. Widmer (2005) derives ***nakkī-*** from a **(H)noḱí-* that arose via hypostasis from **(H)nok̂-i-*h_1, instrumental of an unattested **o*-stem **(H)nok̂-o-* 'weight, might, worth'. It is possible that ***dapi-*** was similarly formed from a **dob-i-*h_1, instrumental of a **dob-o-* 'gravitas, importance'. However, there is no evidence for this *o*-stem. Alternatively, an original *i*-stem adjective **dob-i-* with normal adjectival inflection could have been influenced by the inflection of the near synonym **(H)noḱí-*. The lack of plene writing in the attested forms of ***dapi-*** except for the dative-locative singular could be the result of chance.

If this etymology is correct, why does ***dapi(ant)-*** first show up in writing only in the 13th century? A conclusion that suggests itself is that the words only came to mean 'whole, entire, all' shortly before the mid-13th century, though this scenario does not explain why they do not show up meaning something like 'weighty' earlier. It is possible that ***dapi-*** was a dialect word, and it may be significant that its only cognate in Anatolian is in Luvian, but there is no positive evidence for Luvian origins. ***dapi(ant)-*** does show up in texts with Luvian or with Luvicisms, but that is not surprising, since it is only found in 13th-century texts. Neither ***dapi-*** nor the extended stem ever occurs with the Glossenkeil or with Luvian inflection. A possibility is that ***dapi(ant)-*** may have been somehow colloquial or otherwise marked and avoided in writing until the mid-13th century.[20] It might be significant that many of the Neo-Hittite originals in which the words are found provide content that may reflect contemporary speech relatively closely. The fact that they sometimes occur in texts that look comparatively rough because of errors or erasures may also be significant: perhaps it indicates that ***dapi-***, ***dapiant-*** was first introduced into writing from colloquial speech in drafts.

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The Agent Suffixes as a Window into Vedic Grammar*

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1 Two agent suffixes

The two Indo-Iranian agent suffixes *'-tar-* and *-tár-* can be reconstructed for IE as preaccenting **'-tor-* and accented **-tér-* on the evidence of their Greek cognates. In addition to accent and ablaut, they differ in three other respects: (1) semantically; (2) morphotactically with respect to their constituency in the word, co-occurrence with other affixes, compounding potential, and whether they allow the prefix to be separated from the root; (3) syntactically with respect to whether they have accusative or genitive complements, and adverbial or adjectival modifiers. Here I put forward a unified analysis that explains these systematic differences and relates them intrinsically to each other. I have relied on the Vedic material assembled by Renou, Lühr, and most comprehensively by Tichy. My citations and interpretations of Rigvedic examples adhere to the authoritative new translation by Jamison and Brereton (2014).

Everyone agrees that the two agent suffixes differ in meaning, but opinions diverge drastically on what exactly that difference is. (1) is a thumbnail summary of the proposals that I will be reviewing before presenting my own in §2.[1]

(1)

	'-tar-	*-tár-*
Pāṇini	present habitual/generic agency	agency (unrestricted)
Renou	present/durative agency	punctual agency, function
Benveniste	actual agency	generic agency
Hale	event agency	non-event agency
Lühr	stage-level agency	individual-level agency
Tichy	habitual/generic agency	potential/situation-bound/ occasional agency

*I am grateful to the editors Dieter Gunkel and Benjamin Fortson for their helpful comments.

[1]For some remarks on Kim 2005 see §2. The comprehensive research survey by Balles (2005) covers a number of other proposals, notably those of Hoffmann 1967 and Lazzeroni 1992, which I have no space to discuss here.

My conclusion will be that Renou and Tichy were each right about a different part of the meaning of *'-tar-*, and that everyone has been wrong about the meaning of *-tár-*, except for Pāṇini, who got the meanings of both suffixes exactly right. Pāṇini's key insight was that the semantic opposition is privative rather than equipollent: *'-tar-* denotes habitual/generic agency in ongoing time, while *-tár-* does not have the contrary meaning but rather denotes agency pure and simple. Since the temporal feature, one of the two meaning components that differentiate *'-tar-* from *-tár-*, is also a core property of verbs, it furnishes a principled basis for explaining why *'-tar-* agent nouns have verb-like syntax, in that they assign structural accusative case to their objects, and are modified by adverbs rather than by adjectives (§3).

Less attention has been devoted to the equally puzzling morphological and morphotactic differences between the two agent suffixes. My solution (§4) starts from the observation that *'-tar-* belongs to a class of derivational suffixes that select only bare unprefixed roots, the so-called Caland suffixes. These suffixes have a range of special morphological and phonological properties due to their intimate bond with the root. I show that the constituent structures of the two types of agent nouns predict the accentual differences between them in prefixed formations. The morphotactic restriction against *'-tar-* on complex bases, including causatives, intensives, desideratives, denominatives, and prefixed roots is also crucial to understanding the semantics. Being an outer suffix, the all-purpose agent suffix *-tár-* steps in to fill the gap. Consequently the meaning distinction between the agent nouns is neutralized after complex bases. Neglecting the neutralization between the two suffixes in this context has muddied the waters in previous efforts to pin down the meaning of *-tár-*. In §5 I go on to show that the different morphological constituency of the two agent suffixes also explains why only *'-tar-* agents ever allow the preverb to be separated from the root (tmesis), and why only *-tár-* agents ever occur in nominal compounds.

2 The semantic distinction

Renou (1938:108) claimed that *'-tar-* forms agent nouns with the value of a "general present" tense, and therefore, in virtue of the durative character of the Vedic present, of durative (imperfective) aspect. They are often used like participles to modify the main predicate by specifying its manner of action; also as agent nouns *tout court*, and to designate occupations and skills (*váptar-* 'shearer', *dhmā́tar-* 'smelter', *táṣṭar-* 'carpenter', *ástar-* 'archer', *sthā́tar-* 'driver', *métar-* 'architect', *hétar-* 'rider', *séktar-* 'impregnator'), as well as four priestly functions (*hótar-*, *pótar-*, *néṣṭar-*, *śáṃstar-*). For Renou the basic distinctive semantic feature of agent nouns in the other suffix *-tár-* is punctual aspect (111); as a secondary property that emerges from this aspectual value, they express a "function" attributed to the agent, resulting either from a single unique act or a repeated act.

Benveniste (1948:11–27) rejected Renou's idea that the suffixes differ in tense/aspect. Since he gave no arguments we can only guess why; possibly he saw tense and aspect as categories that have no place in the nominal domain. This is now known to be false, and there is meanwhile a growing literature on nominal tense/aspect (Tonhauser 2008). For Benveniste the properties that Renou had considered secondary are basic. In his words, **′-tor-* denotes "l'auteur d'un acte," while **-tér-* denotes "l'agent voué à une fonction," or "voué à un accomplissement, que cet accomplissement ait lieu ou non." The intended contrast is between the agent of an actual act, and a generic agent who may or may not have actually done anything. Although his interpretation relies heavily on hand-picked examples, sometimes rather subjectively glossed, it became very influential. It was in essence adopted by Debrunner (1954:670) after he and Wackernagel had wrestled with the problem in an earlier volume of their *Altindische Grammatik* (1930:201, 597); similarly by Seiler (1986:58).

Several recent works have given Benveniste's idea a new twist in terms of contemporary lexical semantics. Mark Hale identified it with the distinction between event agent nouns (*′-tar-*) and non-event agent nouns (*-tár-*).[2] The distinction, introduced by Levin and Rappaport (1988), may be illustrated with the ambiguity of the word *receiver*. As an event agent noun, it refers to an actual recipient, and inherits the verbal argument structure of *receive*, as in *frequent receiver of distinguished awards*. As a non-event agent noun, it refers to a person or device that is generically supposed to receive something, but possibly has not ever done so. For example, a radio can be called a *receiver* because it is designed to receive broadcasts, even if it has never actually received one, and a particularly inept *wide receiver* (in American football) may have dropped all the passes he was supposed to receive. Levin and Rappaport note that non-event agent nouns lose the argument structure of the underlying verb: a frequently used radio is not a **frequent receiver*, and it would be peculiar to speak of a **wide receiver of long passes*. The analogy between this English dichotomy of agent nouns and the Vedic one is intriguing, but ultimately not helpful. We shall see that Vedic *′-tar-* and *-tár-* differ from English *-er* semantically and syntactically, and that both Vedic suffixes inherit the full range of arguments of the basic verb.

A different update of the Benvenistean distinction, due to Lühr (2002, 2005), equates it with Carlson's (1977) distinction between stage-level and individual-level predicates. According to Lühr, **′-tor-* agents are stage-level predicates, meaning roughly that they describe a transient property, while **-tér-* agents are individual-level predicates, which describe an intrinsic or permanent property.[3]

[2] Apud Watkins 1995:385 n. 5; the same idea in Fortson 2004:111–2, a similar one for Greek in Schubert 2000.

[3] The stage-level semantics that Lühr attributes to *′-tar-* can perhaps be reconciled with the temporal restriction to ongoing time noticed by Pāṇini, which will be a cornerstone of the analysis offered below. In Kratzer's (1995) influential analysis, stage-level predicates are associated with a "Davidsonian" spatiotemporal variable that is constrained by tense, while individual-level predicates are not. For her they also differ syntactically, in that the subject of individual-level predicates appears in the external argument position (the

Tichy's (1995) extensive monograph on the Vedic uses of the two agent suffixes broke with this near-consensus and effectively turned the traditional view on its head. Her conclusions carry special weight because she mustered the entire Vedic corpus, including the prose, and formulated systematic generalizations about the uses of the two agent nouns. For her it is the preaccenting *′-tar-* that denotes habitual or generic agency. Its basic function is to predicate a permanent property or ability. In Rigvedic it also predicates "generalized agency" in sentences expressing universal truths of the type "he whom Indra favors, does X." In contrast, *-tár-* has a "situative function," denoting agency in some particular situation or situations, either potential, actual, or (most frequently) temporally unspecified occasional situations.

For all their differences, these analyses share two critical assumptions about the nature of the semantic opposition between the two agent suffixes. First, the opposition is taken to be *equipollent*—a distinction between two specific contrastive meanings. This assumption is presupposed by, and built into, the commutation test that Tichy uses as her primary analytic tool. Secondly, each meaning is taken to be constituted by a distinctive semantic feature or set of features, at least one of which is manifested in all its uses, possibly with specialized sub-meanings either in free variation or in a contextually determined distribution. Were it not for its adherence to these constraints, Tichy's meticulous analysis might have come very close indeed to the mark.

Pāṇini's grammar takes a very different approach, which I believe is correct. In his analysis, the opposition is *privative*—an opposition between a specified meaning and no specified meaning.[4] Furthermore, the privative opposition is *two-dimensional*. Its unmarked member *-tár-* (Pāṇini's *tr̥C*) denotes simply an agent. The marked member *′-tar-* (Pāṇini's *tr̥N*) has a conjunction of two additional meaning components, both of which are manifested in all its uses.

The first additional meaning component of *′-tar-* according to Pāṇini, noted by almost all writers on the topic, restricts it to habitual, professional, or expert agents (P. 3.2.135 *ā kves tacchīlataddharmatatsādhukāriṣu*). As a shorthand term, I will refer to this as the HABITUAL/GENERIC meaning. *′-tar-* (Pāṇini's *tr̥N*) shares this meaning with other agent suffixes, enumerated in the rules that follow, which compete with it after particular roots (but do not block it, in virtue of 3.1.94 *vāsarūpo 'striyām*). These include *-iṣṇu-* (e.g. *cariṣṇú-* '(relentlessly) moving', 3.2.136), *-aka-* (*vuÑ*) (3.2.146), *-aná-* (*yuC*) (3.2.148), *-u-* in desiderative nouns and in *bhikṣú* 'beggar' (3.2.168), and *-i-* (3.2.171), among many others—all semantically equivalent to *′-tar-*, and so designated by Pāṇini by grouping them together under the scope of rules 3.2.123 and 3.2.134. Tichy notes that their synonymy is confirmed by textual pairings such as

Specifier of IP), whereas a stage-level predicate is base-generated in a lower position, from where it may raise. Whether this analysis works for the Vedic case remains to be investigated.

[4] In an unpublished conference talk, Thurneysen (1904) drew attention to Pāṇini's privative characterization of the opposition and maintained that it was correct also for Rigvedic.

táturir vīró . . . śrótā hávam . . . "the surpassing hero (*-i-*) . . . hearer (*'-tar-*) of the singer's call"'(RV 6.24.2, Tichy 1995:236).

The second additional meaning component that Pāṇini attributes to *'-tar-* is unaccountably ignored in the entire literature: *'-tar-* is temporally specified, *-tár-* is not. The rule that introduces *'-tar-* (3.2.135 *tṛN*) comes under the scope of 3.2.123 *vartamāne laṭ*, which restricts it to actions performed *vartamāne*, 'at the current time'.[5] It shares this present temporal meaning with 27 other suffixes introduced in 3.2.123–77, including the agent suffixes listed in the preceding paragraph, and the present tense suffixes and participles.[6] Renou (1938:124) does not mention the temporal restriction of Pāṇini's rule, but it perfectly supports his own observation that *'-tar-* has the temporal value of present tense and functions prominently like a present participle. The numerous scholars who have cited that rule since then in discussions of the agent nouns have repeated this omission.

The accented suffix *-tár-*, on the other hand (inserted by rule 3.1.133 *ṇvultṛcau*) does not come under either of these semantic headings. It has neither the temporal restriction nor the restriction to habitual actions that delimit *'-tar-* (*tṛN*) as well as the abovementioned other inflectional and *kṛt* suffixes. Aside from a special modal use separately recorded by rule 3.3.169 *arhe kṛtyatṛcaś ca*, to which I briefly return in §4, *-tár-* has no additional meanings, only the general meaning of agency by 3.4.67 *kartari kṛt*. It belongs in a synonymy class with *'-aka-* (*ṆvuL*) and with other semantically nondescript agent suffixes introduced by subsequent rules which compete with *-tár-* after particular roots, e.g. *'-ana-* (*Lyu*), *-ín-* (*ṆinI*), *-a-* (*aC*) (3.1.134). Their synonymy is likewise confirmed by textual pairings, e.g. RV 9.97.39 *vardhitā́ várdhanaḥ* "the strengthening (*-tár-*) strengthener (*'-ana-*)."

Pāṇini's treatment reveals two important insights about Sanskrit morphology and exploits them to condense his rules. First, suffixes come in synonymy classes. For each meaning there is a general (default) suffix, whose use is delimited by other synonymous suffixes reserved for particular contexts. These sets are grouped together in the grammar under a common semantic heading. The second insight is that most deverbal (*kṛt*) suffixes share a subset of the inflectional tense endings' modal and temporal features. Pāṇini ingeniously captures that relationship by a parallel treatment of these inflectional and derivational suffixes within an integrated morphological subsystem under the headings 3.3.84 *bhūte* "in the past," 3.2.123 *vartamāne* "in the present," 3.3.3 *bhaviṣyati* "in the future," and 3.3.18 *bhāve* "in a stative."

[5]As Sharma (1995:435) translates 3.2.135: "Affix *tṛN* occurs after verbal roots to denote a *kartṛ* who performs an action *at the current time* because of his nature, sense of duty, or skill." Similarly Singh 1991:40.

[6]Joshi and Bhate (1984:163) explain the principle by which *vartamāne* is continued from 3.2.123: "Categorical semantic terms are continued automatically till they are cancelled by a new incompatible categorical item. . . . The categorical meaning term *vartamāne* cancels the incompatible meaning term *bhute* [from 3.2.84]." But the meanings of habituality etc. in 3.2.134 are not incompatible with *vartamana* time. "Therefore, *vartamāne* is continued up to P. 3.2.177," so that the suffixes assigned in this section express present time in addition to habituality, etc.

To return to the agent nouns: if the opposition between them is in fact privative and involves two features, as Pāṇini's analysis claims, their semantics must be reconsidered. The occurrences of the marked suffix *'-tar-* share an invariant semantic feature bundle: the conjunction of two features that restrict it to agents of habitual/obligatory/accomplished actions in ongoing time. But *-tár-* is not restricted in this way. It is just an all-purpose agent suffix. That is why in the Vedic texts its type frequency is more than twice, and token frequency ten times, that of *'-tar-*.

So it is not surprising that efforts to distinguish the two agent suffixes by a simple semantic feature have failed to converge. Does *'-tar-* denote agency in ongoing time (Renou), agency of an actual act (Benveniste, Debrunner), or habitual/generic agency (Tichy)? Does *-tár-* denote agency in punctual aspect and derivatively a function (Renou), just a function (Benveniste), potential or situationally/temporally restricted actual or occasional agency (Tichy), or permanent properties of individuals (Lühr)? There is some truth to all of these formulations but little common ground between them, and none captures the entire semantic gamut of the suffixes. In their search for a unidimensional equipollent opposition, scholars have seized on different components of the marked agent suffix *'-tar-*'s meaning bundle, and imposed complementary specific meanings on what is actually the unmarked, generalized agent suffix *-tár-*, the more accurate of them constituting no more than a list of heterogeneous meanings.

A review of the textual material carefully marshaled in Tichy (1995:249ff.) points to a core meaning for *'-tar-* which fully agrees with Pāṇini's grammar: an agent who currently (*vartamāne*) acts habitually, professionally, or expertly (*tacchīla-taddharma-tatsādhukārin*).

The current time meaning subsumes a special use of *'-tar-* found primarily in Rigvedic, in which it denotes a "generalized" agent in sentences that express universal truths (Tichy 1995:226). Typical are main clauses to conditionals of the form "he/anyone who/whom . . . " with a tensed or subjunctive (not injunctive) verb in the protasis, e.g. *yáṃ . . . hinóṣi . . . sá távotī́ góṣu gántā* (RV 8.71.5) "whom you impel, he by your help arrives/will arrive at cows." These agent nouns can be equally well translated with the present, as Tichy does, or with the future, as Jamison and Brereton do, but they clearly proclaim universal timeless truths. Since these can be expressed in finite clauses by present tense, e.g. *yáṃ yajñám . . . paribhū́r ási sá íd devéṣu gacchati* "the sacrifice that you surround, it alone goes among the gods" (RV. 1.1.4), they are fully compatible with the present temporal feature of *'-tar-*. Outside of such permanent truths *'-tar-* is never used for agents of future events (Tichy 1995:129).

Very rarely *'-tar-* denotes agents of past events. The clearest such exceptional case is *hántā yó vṛtrám sánitotá vā́jam* "[Indra] who is the smasher of Vṛtra and the winner of the prize" (RV 4.17.8, see Tichy 1995:239, 251). But this verse is a special case in that it details "the qualities which make Indra worthy of our attention" (Jamison and Brereton 2014:582), of which all the others in the verse are expressed with agent

suffixes denoting *vartamāne* "current time" actions: *satrāhán-* "total smasher" (sc. of obstacles, which are also called *vṛtra*), *dádhṛṣi-* 'daring', and *hántar-*, *sánitar-*, *dấtar-*, with respectively *KvIP* (3.2.177), *KiN* (3.2.171), and *tṛN* (3.2.135). In this context, *hántā vṛtrám* perhaps expresses the idea of the current relevance and potential repeatability of Indra's signature accomplishment. Of the other cases, RV 7.20.1–2, 8.41.4, 10.49.3 allow a similar interpretation (Tichy 1995:246, 253), and RV 4.20.6 and 10.99.3 are actually translated with present tense by Jamison and Brereton.

Kim (2005:104ff.) objects to Tichy's argumentation on the grounds that the temporal meaning of a sentence such as ŚB III 6.2.18 *yáthaivā̀syāmútra goptā́ró 'bhūmaivám evā̀syā́pīhá goptā́ro bhaviṣyāmaḥ* "as we have been his protectors there, so we will be his protectors here as well" is expressed by the copula, and is therefore irrelevant to the function of *-tár-*. This criticism appears to be misdirected, since Tichy's interpretation does not require that *-tár-* express past or future agency, just that it be compatible with it. The essential fact is that sentences with non-present temporal reference (such as the cited one) allow only *-tár-*, not *'-tar-*, which shows that *'-tar-* expresses agency in current time and *-tár-* expresses agency with no temporal restrictions, just as Pāṇini's grammar says.

Negated existential sentences never have *'-tar-* (Renou 1938:114, Debrunner 1954: 689, Tichy 1995:85, Lühr 2002), even when the agent noun whose existence the sentence denies would appear to satisfy the semantic conditions required for them.[7]

(2) a. *nā́sya vartā́ ná tarutā́ mahādhané / nā́rbhe asti vajríṇaḥ* (1.40.8cd)
"There exists no one to obstruct, no one to overcome the one who wields the mace, be the stake great or small"

b. *ná yásya vartā́ janúṣā nv ásti / ná rā́dhasa ná āmarītā́ maghásya* (4.20.7ab)
"For whom by nature there now exists no obstructor and no hinderer of benefit and bounty"

c. *nákir eṣām ninditā́ mártyeṣu* (3.39.4a)
"There is no one among mortals who scorns them"

d. *ná marḍitā́ vidyate* ... (10.64.2c)
"No dispenser of mercy ... is found"

This can be understood as follows. Being semantically nondescript, *-tár-* can be substituted *salva veritate* for the more specified *'-tar-* in affirmative declaratives, and conversely *'-tar-* can be substituted for *-tár-* in negative declaratives. However, doing so would decrease informativity, not only needlessly restricting the scope of such existential assertions and therefore avoided for Gricean pragmatic reasons, but actually defeating their intended hyperbolic rhetorical force, which the poets take pains to bring out by other means as well, typically by enumerations such as *ná ... mahādhané*

[7] In (2) and other such cases, the agent noun can be translated naturally with a subjunctive clause (as Tichy does) or with a modal infinitive, e.g. 'no one who could hinder', 'no one to hinder'.

nā́rbhe "be the stake great or small" (2a), *ná rā́dhasa ná ... maghásya* "neither benefit nor bounty" (2b).

The suffix *'-tar-* is also avoided in modal contexts, such as general conditionals and wishes for the future:

(3) a. *mā́ vo riṣat khanitā́* (RV 10.97.20a)
"Let your digger [= whoever digs you up] not suffer harm"

b. *ninditā́ro níndyāso bhavantu* (RV 5.2.6d)
"Let them who scorn become those to be scorned"

Modality is compatible with *-tár-* but not with *'-tar-* because of its restriction to ongoing time. Examples like those in (3) indicate that modal meanings are not only compatible with *-tár-* agents, but can be specifically conveyed by them. This must therefore be a special use or meaning of *-tár-*, on top of its generalized unmarked meaning. Indeed, Pāṇini records such a modal meaning for *-tár-* in his 3.3.169 *arhe kṛtyatṛcaś ca* "gerundives and *-tár-* [denote agency] in the meaning of *arh-*."

Since the current time meaning component of *'-tar-* makes it unsuited to express future action, the periphrastic future was grammaticalized from *-tár-*, which is compatible with future and modal uses. For the same reason, its atemporal synonym *'-aka-* (P. 3.1.133) forms agent nouns that head purpose clauses (*bhojako vrajati* "he goes to eat"), and likewise atemporal *'-ana-* (P. 3.1.134) is apt to have infinitival uses: *sá yáthā ... ná bā́hyāñ chábdāñ chaknuyād gráhaṇāya* (ŚB 14.5.4.7–9) "when he cannot hear external sounds."

This analysis immediately raises two questions. Does *-tár-* appear in all agentive senses, or is its use limited to the meanings that are not expressed by the semantically restricted suffix *'-tar-*? In other words, does *'-tar-* BLOCK *-tár-*? According to the Aṣṭādhyāyī the general principle that special rules block general rules should apply.[8] Whatever the situation in Pāṇini's time, in Rigvedic this blocking is clearly a very strong tendency, but it is not an absolute constraint. Unrestricted *-tár-* is mostly

[8] There are some interpretive intricacies here, however. Rule 3.1.94 cancels blocking for the special suffixes in its scope (which include *tṛN* = *'-tar-*), making them merely preferred (*vā*) rather than obligatory (Kiparsky 1979:27–35). But the rule is applicable only to suffixes that are *asarūpa* "of different shape." Since *tṛC* and *tṛN* are of the same shape, differing only in their diacritics, 3.1.94 does not apply to them. So blocking should hold and the more specific *tṛN* should pre-empt the more general *tṛC*. In other words, *-tár-* should be reserved for agency that is either non-present or non-customary/amateur/inexpert, or both. But this said, it must be acknowledged that principle 3.1.94 does not correspond to classical Sanskrit usage with 100% accuracy anyway. Recognizing this, post-Pāṇinian tradition formulates the amendment *tācchīlikeṣu va 'sarūpavidhir nāsti* (Pbh. 67 of Nāgeśa's Paribhāṣenduśekhara, cf. Vt. 3 on P. 5.2.146), which stipulates that 3.1.94 does not apply to the suffixes with the meanings specified in 3.2.134 that are introduced in 3.2.135–77, which includes the suffix *tṛN* that interests us here. In any case blocking should be obligatory. Possibly Pāṇini normalized a tendential blocking relationship between the two suffixes by including them in the large class of *kṛt* suffixes that obey categorical blocking, as he does in some other cases (see Kiparsky 1979:53–4 on "rounding off"). It is also possible that the strict blocking implied by Pāṇini's grammar (and rigorously adhered to in his own usage) really obtained in the language of his time and had arisen from the more flexible Vedic usage through language change. Even though the language described by the Aṣṭādhyāyī preserves

confined to meanings that the restricted *′-tar-* does not express, but still the two suffixes sometimes overlap in usage. For example, Indra is called ***dā́tā maghā́ni*** "giver of bounties" in RV 4.17.8 and ***dātā́ vā́jānām*** "giver of prizes" in 8.92.3. We would expect the special suffix *′-tar-* in both cases, but in the latter the general suffix *-tár-* seems to encroach on its semantic territory for no particular reason and with no appreciably different nuance of meaning. Because of this leeway in the use of *-tár-* we cannot always tell whether a *-tár-* agent noun is habitual/generic, perhaps denoting a *Sondergott* "special god" (Tichy 1995:201, Lühr 2005:197), or just situation-bound.

A second question is whether the restriction to ongoing time is absolute or relative. The grammatical tradition assumes that the suffixes that fall under temporal headings are subject to a kind of sequence of tenses. For example, 3.2.85 ***karaṇe yajaḥ*** assigns the agent suffix *-in-* (*NinI*) to ***yaj*** in composition with an instrumental. This rule comes under the heading 3.2.84 ***bhūte*** "with reference to past time." An ***agniṣṭomayājin*** is therefore someone who has performed the ***agniṣṭoma***—not someone who ***is***, ***will be***, or ***might be*** performing it. Grammatical doctrine considers the temporal denotation of the suffix to be relative to an implicit reference time, which at the time of utterance may lie in past or in the future. So ***agniṣṭomayājy asya putro bhavitā*** "his son will be someone who has performed the ***agniṣṭoma***" can be said of a newborn son, or even one as yet unconceived. Do our agent suffixes behave this way? Could Indra's mother, nursing her divine baby, have used the current-time *-tṛN* to declare: ***vṛtrám hántā bhaviṣyati*** "he will be the slayer of Vṛtra"?[9]

For Vedic, anyway, the answer appears to be negative. In reference to past and future events, the suffix *′-tar-* is systematically avoided (Tichy 1995:126 ff.). In those contexts, the suffix *-tár-* is used instead, as in AVŚ 15.4.1 ***vāsantáu mā́sau goptā́rāv ákurvan*** "they made the two spring months protectors," RV 7.8.3cd ***kadā́ bhavema*** ... / ***rāyó vantā́ro*** "when will we become... winners of wealth?", ŚB 6.2.18 ***goptāro bhaviṣyāma*** "we shall be protectors." This shows that the time reference of *′-tar-* is current in relation to the time of the utterance, rather than to the time that the utterance refers to. Here is another difference between Pāṇinian grammar (on one interpretation at least) and Vedic usage.

3 Connecting semantics and syntax

Agent nouns in *′-tar-* are syntactically verb-like in that they assign structural accusative case to their objects, can take adverbial modifiers, such as adverbs of time and manner, and directional locative complements, e.g. ***íṣkartā víhrutam púnaḥ*** (RV 8.1.12d) "one who makes what has gone awry right again" (Tichy 1995:33).

It is far from obvious how the verbal syntax of *′-tar-* relates to its semantics. Indeed,

the main Vedic features of the two agent suffixes, including their accentual and morphotactic idiosyncrasies, *′-tar-* was fast disappearing in the actual texts of the time, the older Upaniṣads (Renou 1938).

[9] As a Vedic speaker she wouldn't have used the second future *bhavitā́*.

Debrunner (1954:683) declared it paradoxical that the syntactically verb-like *′-tar-* is the "more nominal (substantival)" of the two suffixes from the semantic point of view, while the syntactically nounlike *-tár-* is semantically "more participial."

Kim (2005) attemps a semantic explanation for the two case assignment patterns. He states that the genitive object of *-tár-* has a concept-forming function (***dient zur Begriffsbildung***, 130). The accusative object of *′-tar-*, on the other hand, gives "more precise information" and completes the verb's meaning holistically (***ganzheitlich***, 131, 135). *′-tar-* needs a genitive complement because it is characterized by "perfectivity" and by ***Beeigenschaftung*** "typing."[10] These features of *′-tar-* agents are in turn connected with their "individuality," "genericity," "high extensionality," and "indicativity (-divisible)" (145). I am skeptical of the utility of ***Begriffsbildung*** and ***Beeigenschaftung*** for explaining the syntax, for two reasons. First, since accusative case on objects of verbs is a purely structural case that has no semantic function, it is not likely that accusative case on objects of *-tár-* agents has a semantic function. Secondly, it is not clear how these semantic categories can be responsible for the other verb-like properties of *-tár-* agents, that they allow adverbial modification and directional locative complements.

Kim's claim that agent nouns in *-tár-* are non-referential (144), as opposed to agent nouns in *′-tar-*, which have an identifiable referent and are definite (145), is more lucid, but false at least on a standard understanding of referentiality and definiteness. The two agent-noun types do not differ in these respects. Agent nouns in *′-tar-* can very well be non-referential, and indeed usually are non-referential in their most typical use as predicates. For example, in RV 5.87.6c the poet uses the *′-tar-*agent ***sthā́tāraḥ*** as an epithet in order to attribute to the Maruts a property ("you are charioteers"), not to identify them as particular individuals ("you are the charioteers"). To be sure, agent nouns are often predicated of specific individuals, such as the Maruts in this example, but of course that does not make the predicates themselves referential, any more than adjectives predicated of specific individuals are thereby referential. Besides, agent nouns can just as well be predicated generically of non-referential subjects, as in the type ***yám agne pṛtsú mártyam*** / ... / ***sá yántā śáśvatīr íṣaḥ*** (RV. 1.27.7) "The mortal whom you will help in battles, O Agni... he will hold fast to unfailing refreshments." Here the agent noun ***yántar-*** is not meant to apply to any specific person, but to whatever person Agni helps. As for definiteness, *′-tar-* agents are indefinite in many common uses, for example in comparisons with ***iva*** and ***na***, such as ***ásteva*** "like an archer" (4.31.13b etc.) not "like the archer," ***yā́teva*** "like a driver" (1.70.11c etc.), ***sékteva*** "like a pourer" (3.32.15b), ***dā́tā ná*** "like a mower" (5.7.7b), ***suyámo ná vóḍhā*** "like a draft-horse easy to control" (9.96.15d), ***vápteva*** "like a barber" (10.42.4d). Indefinite

[10] *Beeigenschaftung*, literally 'propertification', is not simply 'qualification' or 'attribution'. It has a richer and somewhat hard-to-grasp meaning, defined by Kim (121) as *Typisierung* 'typing', the attribution of a property "perpetuated" from the past to the "bearer of the eventuality" (*Sachverhaltsträger*—the agent, in this case) as an "ideal representative" of this property.

designations of groups of indeterminate size and unknown membership can certainly be expressed by *ˈ-tar-* agents, e.g. *ástr̥bhiḥ* "with archers" (1.8.4a). In short, *ˈ-tar-* agent nouns do not necessarily have identifiable referents, nor are they necessarily definite.

Our analysis provides a feature that makes *ˈ-tar-* agents capable of assigning structural case to their objects and of having adverbial modifiers. It is the tense/aspect feature that they share with finite verbs and participles, which are actually made from tense/aspect verb stems. Infinitives are built on the root; in so far as they assign direct case to their complements, which in Vedic they often do not ("attraction"), the infinitive suffixes must have some verbal feature that licenses case assignment. Besides nouns in *ˈ-tar-* a number of other derived agent nouns sometimes assign accusative case to their objects in Vedic. All of them have ongoing time reference. The most common of them are placed in Pāṇini's grammar after the heading 3.2.123 *vartamāne (laṭ)* "in the present," "in ongoing time."

(4) a. *-i-* after reduplicated stems (*Ki*, *KiN*, P. 3.2.171). E.g. RV 9.61.20a *jághnir vr̥trám* "killer of Vr̥tra" (Debrunner 1954:293).

b. *-(i)ṣṇu-* (P. 3.2.136). E.g. RV 1.63.3a *dhr̥ṣṇúr etān* "bold against them" (Kim 2005:134).

c. *-u-* after desideratives (P. 2.168). E.g. AV 12.1.48 *nidhanám titikṣúḥ* "enduring poverty" (?) (Debrunner 1954:469).

d. -∅- (*KvIP*, P. 2.177–8). E.g. RV 1.1.4ab *yáṃ yajñám . . . / . . . paribhū́r ási* "the sacrifice that you embrace."

The agentive *-i-* that appears after non-reduplicated roots usually forms synthetic compounds (see (10g)); the rare uses after prefixed roots tend to have accusative objects, e.g. RV 4.20.1d *turváṇiḥ pr̥tanyū́n* "overcoming battlers." This use is not covered in Pāṇini's grammar, but since it is historically identical with -∅ on *seṭ* roots ((4d) *KvIP*), it is not surprising that it has the same meaning and accusative case-assigning potential. Kim (2005:135) also cites instances of accusative objects with a few other suffixes: *-a-* (*aC*) (P. 3.1.134, 3 examples, e.g. RV 8.33.5 *ākaráḥ sahásrā* "who distributes thousands"), *-ín-* (*ṆinI*) (P. 3.1.134, 1×), *-van-* (1×), and desiderative *-u-* (P. 3.2.168, 1×). In each case the textual context of the examples indicates ongoing time, though only the last falls under P. 3.2.123. Nouns derived with clearly tenseless suffixes, whether they are bare-root (*-ā-*, *-rá-* (*-lá-*), *-má-*, *-as-*, etc.), or outer suffixes, never assign object case. These suffixes are assigned by the rules in the first part of the *kr̥t* section up to the first tense heading 3.2.4 *bhūte* (in practice from 3.1.133 to 3.1.150, where the *upapada* suffixes begin), and under the heading 3.3.18 *bhāve* "denoting a state."

In addition, nominals in comparative *ˈ-īyas-* and superlative *ˈ-iṣṭha-* assign accusative case to their objects. These gradated formations are paradigmatically related to

(and on some analyses morphologically derived from) agent nouns in *-tár-* and other bare-root suffixes. In this capacity they inherit the syntax of these agent nouns by one of the mechanisms discussed in §4 below.

Untensed deverbal nouns are grammaticalized to form infinitives and periphrastic futures and perfects. Nouns with tensed suffixes are not suitable for this use because their tense features (present, past, and future) are not compatible with the tense or mood features of the target constructions.[11] So only tenseless suffixes are grammaticalized as verbal forms: the second future *-tā* (from *-tár-*), infinitival *-ana*, *-aka* as complements of motion verbs, gerundives sanctioned by 2.3.69 *na lokāvyayaniṣṭhākalarthatr̥nām*, and the periphrastic perfect with *-ā-*. Once grammaticalized as verbal forms, they naturally assign object case and allow adverbial modification like any other verb.

4 Morphotactics and morphophonology

The usage of the two agent suffixes is not constrained only by meaning. Morphological constraints also play a role. The suffix *ˈ-tar-* is one of a class of BARE-ROOT SUFFIXES that may be added only to unprefixed and unsuffixed roots. For example, the four priestly functions *hótar-*, *pótar-*, *néṣṭar-*, *śáṃstar-* are designated with *ˈ-tar-*, whereas *udgātár-*, *upavaktár-*, *praśāstár-*, *viśastár-*, *śamitár-*, *pavitár-* are formed with *-tár-*.[12]

Attempts to make a semantic distinction between the two sets of terms (Benveniste 1948:16, Tichy 1995:286) are unconvincing because they lack support in ritual practices. But there is the obvious formal difference that *hótar-*, *pótar-*, *néṣṭar-*, *śáṃstar-* are made from simple roots, whereas the others are made from complex bases. *ud-gātár-*, *upa-vaktár-*, *pra-śāstár-*, *vi-śastár-* have prefixed roots, and *śamitár-*, *pavitár-* are from the causatives *śamáyati*, *paváyati* (*pāváyati*), at least synchronically. For *śamitár-* Pāṇini's rule 6.4.54 *śamitā yajñe* shows that *śamitár-* is indeed a decausative agent noun from his native-speaker perspective (with deletion of the causative suffix *ṆiC* by 6.4.51 *ṇer aniṭi*). And it is natural to suppose that if *pótar-* is from *punāti*, then *pavitár-* is from *paváyati*.[13]

Being officiating priests whose functions are regulated in the śrautasūtras, these are certainly habitual, professional, or skilled agents, and by rule 3.2.135 should preferably be denoted with *ˈ-tar-*. But an iron-clad restriction of Sanskrit morphology dictates that the suffix *ˈ-tar-* selects for a bare root. It must follow the verbal root

[11] Two Sankrit infinitive endings, *-dhyai* and the rare *-sani*, can be added to present stems as well as to roots. Whether this distribution is innovative or original is disputed (García Ramón 1997, Keydana 2003:35ff., Fortson 2012). In any case, the tense/aspect suffix does not appear to contribute a semantic tense feature to these infinitives in Vedic, for the infinitives built on the present stem function like the ones built directly on roots.

[12] Kātyāyana (Vt. 1 on 3.2.135 *tr̥jvidhāv tvikṣu cānupasargasya*) notices this contrast and correctly identifies the constraint against prefixed bases.

[13] The regular form for Pāṇini (6.4.52ff.) is TS *pavayitár-*, which retains the causative suffix.

directly, without any other intervening suffix, and it is never made from prefixed bases.[14] Agents of causative verbs and prefixed verbs are therefore invariably made with *-tár-*, e.g. *codayitár-*, *codayitrī́* 'impeller'. Since *-tár-* is just an agent suffix with no additional semantic or morphological restrictions, it can step into the breach whenever *ˊ-tar-* is unavailable for any reason.

Tichy (1995:204ff.) lists agent nouns predicated of divinities, persons, and animals in Vedic prose that are formed with *-tár-* but on the face of it appear to involve habitual or generic agency, rather than agency in some particular situation. It turns out that the overwhelming majority of these nouns are from bases that are either causative,[15] prefixed, or both:

(5) a. *arpayitár-* 'achiever', *kalpayitár-* 'fixer', *svadayitár-* 'sweetener', *majjayitár-* 'sinker', *āpayitár-* 'procurer'

b. *pradātár-* 'provider', *vinetár-* 'one who leads apart', *abhinetár-* 'one who leads towards', *aparoddhár-* 'expeller', *prasavitár-* 'impeller', *prāvitár-* 'furtherer', *ativoḍhár-* 'one who leads into', *abhivoḍhár-* 'one who leads out of', *anubhartár-* 'transferrer', *abhisektár-* 'asperser', *anumántar-* 'one who sets free', *apahantár-* 'one who drives away', *abhigantár-* 'planner', *niṣeddhár-* 'prohibitor'

c. *prapyāyayitár-* 'sweller', *prajanayitár-* 'engenderer', *avagamayitár-* 'one who causes to come to power', *vicetayitár-* 'differentiator', *praj-* 'one who causes to recognize', *abhigoptár-* 'protector'

Tichy's search for semantic reasons for the use of *-tár-*, such as *Sondergötter* "special gods" (rightly criticized as implausible by Kim 2005:111ff.) is therefore unnecessary. Since the morphology restricts the specialized agent suffix *ˊ-tar-* to bare uncompounded roots, the agent nouns in (5) must be formed with *-tár-*, which is compatible with any kind of agency including the habitual/generic type of agency ordinarily denoted by *ˊ-tar-*.

Only four of the agent nouns in this group cited by Tichy are formed from simple roots. For three of them, as she points out (217) the context requires a special modal meaning: ŚB 2.3.1.11 *aśitár-* 'one who is able to (or entitled to) to eat', JB 2.32 l. 6 *hantár-* 'one who is able to (or entitled to) to kill', TB 1.8.6.2 *pātár-* 'one who is supposed to drink'. A modal meaning is also possible, though not contextually guaranteed, for the fourth case, ŚB 4.1.4.1 *kartár-* 'one who does (or is supposed to do)'. These cases instantiate the special modal use of *-tár-* which Pāṇini takes care of in his

[14]The other derivation, compounding prepositions with *ˊ-tar-* agents, was not available for **úd-gātar-*, **úpa-vaktar-*, and **prá-śāstar-* because the nouns *gā́tar-*, *váktar-*, *śā́star-* are not used in Vedic. **ví-śastar-* would have been possible since there is AV *śástar-*, so perhaps *vi-śastár-* was built on the pattern of the others.

[15]One third of the total, according to Tichy.

abovementioned rule *arhe kr̥tyatr̥caś ca* 'gerundives and *-tár-* [denote agency] in the meaning of *arh*'.[16]

Tellingly, the nouns in (5) sometimes explicate agent nouns in *-ana-* (Tichy 1995: 205), which as noted above are semantically equivalent to *ˊ-tar-*, and, being outer suffixes, can be freely added to causative bases. This is another clear indication that *-tár-* can be used in any meanings that *ˊ-tar-* is used in, and must be so used when the base is not a simplex root.

The suffix *ˊ-tar-* is one of a class of bare-root suffixes that are morphotactically restricted in this way. This class also includes adjectival *-ant-* (*br̥h-ant-* 'high', Av. *bərəzaṇt-*, Lowe 2012), nominalizing *-as-* (*téjas* 'sharpness'), adjectival *-a-* (*dīrghá-* 'long'), comparative *ˊ-īyas-* and superlative *ˊ-iṣṭha-* (*cyáv-īyas-* 'rushing more', *gám-iṣṭha-* 'most willing to go'), stative *-(i)man-* (*pre-máṇ-* 'affection'), adjectival *-rá-* (*-lá-*) (*ug-rá-* 'mighty'), nominalizing *-má-* (*ruk-má-* 'ornament', *kṣā-má-* 'scorched'), and *-as-* (*śráv-as-* 'fame').

Since all these suffixes must directly follow the root, they can never co-occur. This mutual incompatibility drives the so-called CALAND SYSTEM—to which exactly this class of suffixes belongs, and which they indeed constitute. For example, since suffixed adjectives like *tig-má-* 'sharp' cannot receive either the bare-root gradation suffixes *ˊ-īyas-* and *ˊ-iṣṭha-* or the nominalizer *-as-*, their gradation and *-as-*nominalization must be built directly on the root: *téj-īyas-* 'sharper', *téj-iṣṭha-* 'very sharp, sharpest', *téj-as-* 'sharpness'; *drā́gh-īyas-* 'longer', *drā́gh-iṣṭha* 'longest', *drā́gh-(i)man-* 'length'. In the same way, agent nouns in *ˊ-tar-* are supplied by bare roots in gradation and nominalization, e.g. *dā́-tar-* 'giver', *dé-ṣṭha-* (*dáy-iṣṭha-*) 'givingest', *dā-mán-* 'givingness, generosity'; *ā́gantar-* (ŚB) 'forthcoming', *ā́gamiṣṭha-* 'most forthcoming'.

Depending on one's approach to morphology, the Caland system can be thought of as a network of suffix correspondences, or as a process of stem truncation. The former type of analysis prevails in modern Indo-Europeanist work. It is typically couched in terms of suffix alternations within an item-and-arrangement morphological framework (Rau 2009), but it can also be understood derivationally in terms of the necessarily mutually exclusive distribution of bare-root suffixes:

(6) a. gam → gam-ˊtar- → *gántar-* → ā́-gántar- $\xrightarrow{\text{BAP}}$ *ā́gantar-* 'forthcoming'

b. gam → gam-ˊiṣṭha- → *gámiṣṭha-* → ā́-gámiṣṭha- $\xrightarrow{\text{BAP}}$ *ā́gamiṣṭha-* 'the most forthcoming'

This style of analysis faces the problem of explaining how combinations of *-īyas-* and *-iṣṭha-* with bare roots can have agentive and other meanings on top of their basic gradation meaning. One possibility is to posit two distinct meanings for them, one being plain gradation and the other a portmanteau of gradation plus agentivity.

[16]The root *arh* that functions as a gloss in the rule has a range of modal meanings: 'to deserve', 'to be entitled to', 'to be allowed to', 'to be obliged to', 'to be able to'.

The truncation approach is found in Pāṇini's grammar. He derives the Caland alternations in comparatives by affixing *ˈ-īyas-* and *ˈ-iṣṭha-* to nominal stems (i.e. treating them as ***taddhita*** rather than ***kṛt*** suffixes) and formulating morphophonological rules that delete the final rhyme of the base (in the case of *-tar-*, the entire suffix) before *ˈ-īyas-* and *ˈ-iṣṭha-* (rules 6.4.154 ***ter iṣṭhemeyassu***, 6.4.155 ***ṭeḥ***). For example, ***ā́gamiṣṭha-*** would be derived from [ā́-gam-ˈtar-ˈiṣṭha-] by truncating the agent suffix. While truncation of morphemes is incompatible with many modern morphological theories, in this case it does have the twin advantages of regularizing the distribution of the gradation suffixes by making all of them strictly denominal at a deeper level of analysis, and of deriving their semantics directly from this source.

Whichever theoretical option we adopt for analyzing the Caland system in the synchronic morphology, it is clear that *ˈ-īyas-* and *ˈ-iṣṭha-* are paradigmatically related to agent nouns formed with bare-root suffixes including *ˈ-tar-*. The fact that *ˈ-tar-* is a bare-root suffix whereas *-tár-* is added at a later stage of the morphological derivation predicts that only bare-root *ˈ-tar-* should correspond to the bare-root gradation suffixes *ˈ-īyas-* and *ˈ-iṣṭha-*. This prediction appears to be correct. A few Vedic comparatives and superlatives are cited as gradated forms of *-tár-* agents by Tichy (1995:73), but every one of them can be related to other Vedic bare-root agent formations that belong to the Caland system: *vánīyāṃs-* (RV) can be from *vanú-* rather than from *vantár-* (both RV), *yámiṣṭha-* from *yáma-* (RV), *áviṣṭha-* from *ávi-* (AV), and *códiṣṭha-* from *codá-* (RV).[17]

The morphological bottleneck of bare-root suffixes drives the spread of replacement morphology, such as the gradation suffixes *-tara-*, *-tama-*, which are not encumbered by a bare-root restriction, e.g. RV *ā́-miś-la-tama-* from *ā́-miś-la-* (instead of something like ***ā́-miś-iṣṭha-*). Another example is that nouns denoting property concepts are with increasing frequency made with the historically more recent *-tvá-*, *ˈ-tā-*, especially after bases that cannot receive the bare-root suffix *-(i)man-* to express that function. Paraphrases and periphrastic constructions offer another escape from the bottleneck. The perfect, a bare-root inflectional category,[18] is expressed periphastically for causatives, denominatives, and other derived verbs in Sanskrit; the same strategy in Germanic is of course the historical source of weak preterites.

The large class of outer suffixes to which accented *-tár-* belongs can be separated from the root by other suffixes, such as the causative, denominative, intensive, and desiderative formatives. They are affixed to the whole verb base (lexeme), including the extended root plus any preverb that the lexeme may have. Accordingly the respective constituent structures of words with *ˈ-tar-* and *-tár-* look like this:

[17] VS 16.40 *námo hantré ca hánīyase ca* is an interesting case where suffix-stressed *hantár-* is paralleled by the comparative of root-stressed *hántar-*, another demonstration of the two agent suffixes' meaning compatibility.

[18] In this case we have to consider the reduplication as a modification of the root rather than as a separate prefix; its morphological status is not the same as that of the augment and privative *a-*.

(7) a. Bare-root suffix: [Preverb [Root *ˈ-tar-*]]
    b. Outer suffix: [[Preverb [Root (Caus) . . .]] *-tár-*]

Three lines of reasoning converge on this conclusion. The first relies on the principle that affixes can morphophonologically affect exactly the stems they are added to, no more and no less. This is a general consequence of cyclic morphophonology (see Kiparsky 2010 for evidence that it holds also for Sanskrit). Armed with this principle, we can use word accent to diagnose morphological constituency. We observe that whenever the suffix is of the bare-root type (such as *ˈ-tar-*), stems of the form Preverb + Root + Suffix are accented on the preverb, regardless of the suffix's own accentuation: *bhártar* 'bringer', *prá-bhartar-* 'offerer'. An outer suffix, on the other hand, dictates the place of the word accent in prefixed and simple stems alike, depending on whether it is inherently accented and whether it is dominant or recessive. Since *-tár-* is dominant and accented, it causes all accents on its base to be deleted, and is accented on the resulting stem: TS *pra-dāpayitár-* 'one who causes to give', ŚB *un-netṝṇā́m* (gen.pl.) 'raiser, pourer out' (a type of priest).

Given (7), this accentual difference between bare-root and outer suffixes is a consequence of the cyclic principle. For since bare-root suffixes are immediate sisters of the root (as shown in (7a)), they do not have scope over the preverb. Rather, the "preverb" is composed with the noun derived by attaching the suffix to the root. So it is an immediate constituent of the compound stem, and out of reach of whatever accentual influence the bare-root suffix inside the second member might have. Being the first inherently accented morpheme in the word, it receives the word accent (the ictus) by the BAP, occulting the accent of the root + suffix combination. An outer suffix, however, is added to the root plus any causative or other secondary suffixes and the preverb, and so all these elements will be in its scope and fall under its accentual sway. If it is dominant, it deletes all stem accents including that of the preverb. Thus the accentual effects of outer suffixes are always overtly manifested. The derivations in (8) and (9) show this.

(8) Bare-root *ˈ-tar-*
  a. [bhar-] → [bhar-ˈtar] → [bhár-tar] *bhártar-*
  b. [bhár-tar] → [prá-[bhár-tar]] $\xrightarrow{\text{BAP}}$ [prá-[bhar-tar]] *prábhartar-*

(9) Outer *-tár-*
  a. [bhar-] → [ápa-bhar] *ápa-bhar-* (e.g. inf. *ápabhartavái*)
  b. [ápa-bhar] → [[ápa-bhar]-tár-] $\xrightarrow{\text{Deaccentuation}}$ [[apa-bhar]-tár-] *apa-bhar-tár-*

The second argument for the constituent structure in this is that preverbs can determine the choice of outer suffixes (or of their allomorphs, from another point of

view) but not of bare-root suffixes. For example, the absolutive ending is *-ya* when the root is compounded with a preverb or adverb, and *-tvā* when the root is not so compounded. So *-ya* cannot be be added until the root has been compounded with a preverb. A similar distribution relates *-ti-* and *-tu-*. Eventive *′-a-* as in *kéta-* 'desire', *háva-* 'invocation', *kā́ma-* 'desire' is suppleted by accented *-á-* in compounds: *pra-ketá-* 'appearance', *ā-havá-* 'challenge', *apa-kāmá-* 'aversion' (Debrunner 1954:99). Bare-root suffixes, on the other hand, are never restricted to the presence of a particular preverb. This follows from the constituent structure in §4, on the assumption that the selection of affixes (and of their allomorphs) is sensitive exactly to the base to which they are added, not just to a smaller piece of it, nor to some larger constituent.

The third argument for the constituent structure is that the combination of a root and an outer suffix sometimes does not occur independently of the preverb; they are synthetic (*upapada*) compounds. Such cases tell in favor of the constituent structure (7b). For example, RV *vi-pṛ́k-vant-* 'separated, unmixed' is made by adding *-vant-* to *vi-pṛc-* 'separate', not by adding *vi-* to **pṛk-vant-* (which does not exist). Similarly, *ā-dhārá-* 'support' is from the causative *ā-dhāray-* (*ā-dhārayate* 'supports'), not from ***dhāra-*, which does not occur uncompounded; *(a-)vidasyá-* '(un-)ceasing' is from *vi-das-* (*ví-dasyati*), not from ***dasya-*. Examples can be multiplied ad libitum. The opposite case, in which a Preverb+Root combination is systematically restricted to the context of outer suffixes, does not appear to occur.

Bare-root suffixes have exactly the reverse pattern, pointing to the right-branching constituent structure (7a). For example, there is no compound verb such as **vi-prī-* (***viprīṇāti*, ***viprīṇīte*) from which *vípre-maṇ-* 'estrangement' and *vípriy-a-* 'estranged' might be derived; instead they are formed as nominal compounds, from *ví-* plus *pré-maṇ-* 'affection' and from *ví-* plus *priyá-* 'dear', respectively. Similarly, RV *ā́miśla-* 'mixing' is not from ***ā́-miś-*: there is no such verb, and even the simple root *miś-* has only nominal derivatives. Rather, it is made by prefixing *ā́-* to *miśla-* 'mixed', which appears with other prefixes as well (RV *ní-*, *sám-*), and is very common in the phonological variant *miś-ra-*. AV *ávakṣāma-* 'wasted' must be from *kṣāmá-* 'charred, scorched' (MS, JB), since *ava-kṣā-* has no verbal forms, only nominal *avakṣā́ṇa-* 'burned down' (MS, TS). *apa-kāmá-* 'aversion' is from the very frequent noun *kā́ma-* (VS *kāmá-*) 'desire', not from ***ápa-kām-*, ***ápa-kāmayate*, which is not used.

Let us mention as an aside that *-tum* infinitives and root nouns in -∅ shed light on the compositional analysis of the accent system (Kiparsky 2010). These suffixes are just inherently unaccented, but dominant, which is to say that they delete any inherent accent of the stem to which they are added. At the stem level this configuration results in movable accent for monosyllables, and in polysyllables it feeds the Oxytone rule, which assigns default accent to the stem-final syllable, yelding such contrasts as instr.pl. *bhū-bhíḥ* 'worlds' vs. *ā-bhū́-bhiḥ* 'present ones'.

Independent evidence for the unaccented dominant status of -∅ is that it creates inherently unaccented accentually movable monosyllabic root nouns from inherently

accented roots ("Narten roots"), e.g. *śā́s-*, instr. *śās-ā́* 'command', with accent on the case ending. Unlike -∅, *-tum* is a word-level ending; it terminates the derivation. The Oxytone rule is not applicable at the word level. Rather, the default for finished words is initial stress, as shown most obviously by orthotonic vocatives. Under these assumptions the analysis proposed in Kiparsky 2010 need not be extended in any way to derive this new data, and in particular there is no need to add a category of initial-accenting suffixes for the sake of the word-initial accent of *-tum* infinitives.[19]

Outer suffixes, by the abovementioned criteria that they can be attached to prefixed or suffixed roots, or form synthetic compounds, include the following:

(10)
- a. Eventive and agentive -∅. RV *ni-víd-* 'instruction', *pra-yúj-* 'acquisition', *vṛtra-hán-* 'Vṛtra-killer' (synthetic compound).
- b. Agentive *′-aka-*, *-aká-*. ŚB *cikitsaká-* 'physician' (desid. *cikitsa-*), VS *gā́ṇaka-* 'astrologist' (denom. *gaṇayati* 'calculates'), MU *tāraka-* 'carrying over' (AV caus. *tāráyati*).
- c. Agentive *′-ana-*. *ā-mántraṇa-* 'calling' (*mántraṇa-*, denom. *(ā́-)mantráyate*), *pra-árpaṇa-* 'setting in motion' (*árpaṇa-*, caus. *(prá-)arpayati* 'sets in motion').
- d. Eventive *-ā-*. AV *vi-īrt-s-ā́-* 'desire to frustrate' (desid. *vī́rtsayati* 'wants to frustrate', VS *upa-śik-ṣ-ā́-* 'desire to learn' (B *śik-ṣ-ā́-* 'instruction', desid. *úpaśikṣati*).
- e. Agentive *-í-* (*Ki*, *KiN*). Derived from reduplicated stems, with perfect-type reduplication (Pāṇini 3.2.171, Debrunner 1954:293, Kim 2005:119) and semantic connections also to the intensive (Debrunner, 291): RV *saṃ-dadí-* 'comprising', *vi-sāsahí-* 'overwhelming', *ni-jaghní-* 'knocking out'. In simplexes the inherently accented reduplication normally supersedes the suffixal accent, e.g. *jághni-* 'killer'.
- f. Agentive *-(i)ṣṇu-* (3.2.136). E.g. *dhṛṣṇúr etān* (Kim 2005:134).
- g. Agentive *′-i-*. Reanalyzed from -∅ on seṭ roots: RV *vāja-sáni-* (synthetic compound), *ā-táni-* 'penetrating'.
- h. Agentive *-iṣṇú-*, *-itnú-*. RV *stan-ay-itnú-* 'thundering' (*stanáyati* 'thunders'), *tāp-ay-iṣṇú-* 'tormenting' (AV *tāpáyati* 'torments'), ŚB *pra-jan-iṣṇú-* 'procreating' (*pra-jā́-* 'progeny', *prá-janayati* 'procreates').
- i. Agentive *′-uka-*. MS *vy-árdhuka-* 'deprived', TS *ud-bándhuka-* 'one who hangs (himself)'.

[19] In terms of this framework, both agent suffixes are dominant, meaning that they delete any accent off their bases and impose their own accentual requirements on them. *-tár* is really an unaccented dominant suffix, so it forms unaccented stems, which receive default oxytone accent and pseudo-mobile inflection, e.g. *kar-tr-é*, *kar-tṛ́-bhis*. The full grade of the preceding syllable shows that the suffix is indeed inherently unaccented. Avestan *bərətar-* (Debrunner 1954:673) suggests that it might have been amphikinetic in IE.

j. Agentive *-tár-*. RV *cod-ay-i-tr-ī́-* 'impeller' (*codáyati* 'impels'), TS *pra-dā́p-ay-i-tár-* 'bestower' (*prá-dāpayati* 'bestows'), *ni-dhā-tár-* 'one who sets down' (*dhātár-* 'one who sets', *ní-dadhāti* 'sets down').

k. Agentive *'-van-*, fem. *-var-ī-*. *vi-bhā́-var-ī-* 'brilliant' (*ví-bhāti* 'shines forth'), *pra-sū́-var-ī-* 'bearing offspring' (*prá-sūte* 'procreates', *niṣ-ṣídh-var-ī-* 'granting'. According to Debrunner (1954:899) these are extensions of synomymous root nouns *vi-bhā́-*, *pra-sū́-*, *niṣ-ṣídh-*.

l. Gerundive *'-ya-*. *car-kṛ́t-ya-* 'to be praised' (intens. *carkarti*), 10.116.5a *bhrāśya-* 'to be caused to collapse' (caus. *bhrāśáyati* 'causes to collapse'), TS *saṃ-sthā́p-ya-* 'to be set up' (caus. *saṃ-sthāpáyati* 'sets up').

m. Eventive/agent noun *'-ya-*, fem. *-yā́-*. AV *upa-hat-yā́-* 'injury' (*úpa-hanti* 'hits').[20]

n. Eventive/agent noun *'-∅-* (root compounds, Pāṇini's suffix *KvIp*, (4d)). *pra-ṇe-nī́-* 'constant leader' (intens. *ne-nī-yá-te*), *vi-bhā́-* 'brilliant', *pra-sū́-* 'bearing offspring'.

Some bare-root (Caland) suffixes function as outer suffixes as well:

(11) a. Agentive/instrumental *-á-*. *vará-* 'suitor' (*vṛṇóti* 'chooses, woos'), *pari-car-á-* 'servant' (*pári-carati* 'attends to'), *vevijá-* 'trembling' (intens. *vevijyáte* 'trembles'), *ā-dardirá-* 'crushing' (intens. *ā́-dardarti* 'crushes'), *ā-dhārá-* 'support' (caus. *ā́-dhārayate* 'supports'; the causative suffix is deleted but its presence in the derivation is betrayed by the vṛddhied root), *abhi-rorudá-* 'causing tears' (intens. *rorudá-*), present stem RV *(a-)vidasyá-* '(un-)ceasing', from *vi-das-* (*ví-dasyati* 'expires'. Infinitival uses: RV *upa-sthā́yam* 'standing near', from *upa-sthā-* (*upatiṣṭhati* 'stands near').

b. Agentive *-ín-*. *ni-tod-ín-* 'piercing' (*ní-tudati*, *ní-tundate* 'pierces'), *niy-ay-ín-* 'going to' (*ny-èti* 'goes to'), *upamantrín-* 'reciter' (denom. *(úpa)mantrayate* 'recites'), KŚS *śrā́p-in-* 'cooking' (caus. AV *śrap-ay-a-ti* 'cooks').

c. Agentive *-ú-* (paradigmatically paired with *-ā́-*, (4c)). *abhi-dipsú-* 'wanting to hurt' (desid. *abhi-dips-*) *ririkṣú-* 'wanting to hurt' (desid. *ríriksati*), *-u-vṛṣayú-* 'rutting' (denom. *vṛṣayáti*), *ṛtāyú-* 'righteous' (*ṛtāyáte* 'is righteous'), *bhājayú-* (caus. *bhājáyati*).

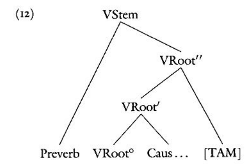
5 Tmesis and compounding

Agents formed with the bare-root suffix *'-tar-* allow occasional tmesis, as in RV 9.86.6d *sáttā ní yónā (= nísattā yónā) kaláśeṣu sīdati* "seated in his womb, he [Soma] sits down in his tubs," 9.97.38a *úpa sū́re ná dhā́tā = sū́re nópadhātā* "like the Placer of the Sun." And they never occur in nominal compounds at all, while *-tár-* agents occasionally do, and in rather archaic-looking ones at that: RV 1.174.10b *nṛ-pā-tā́*, 7.74.6b *nṛ-pā-tā́r-aḥ* 'protector(s) of men', *man-dhā-tár-* (PN) 'thoughtful', lit. 'mind-setter' (1.112.13b, 8.39.8d, 8.40.12b, 10.2.2b).

[20] Not a clear case. Might really be a bare-root formative because it rarely appears compounded with preverbs (but very often with nominals), and there are no recorded derivatives from extended roots.

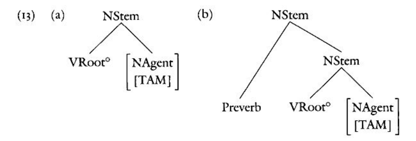
The constituent structure that we motivated on accentual and morphological grounds in (7) provides a rationale for these restrictions. In finite verbs, the fact that Tense/Aspect/Mood (TAM) morphology is invariant for each root regardless of the presence of a preverb tells us (on the abovementione d assumption about the domain of allomorphy) that it is suffixed to an extended root projection, forming a constituent (here labeled somewhat arbitrarily as VRoot″) to which the preverb is then added:

(12)



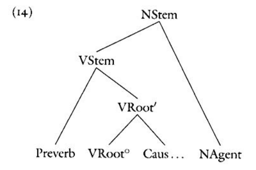
As discussed at (7), (8), and (9), inner agent suffixes are added directly to the root to form a noun stem, which can then be composed with a "preverb." In this way (13b) is derived from (13a).

(13) (a) (b)



Outer suffixes, including the agent suffix *-tár-*, are added to the entire verb stem to form a noun stem.

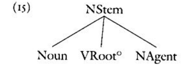
(14)



It will be seen that the preverb is an immediate constituent of the stem in (12) and in (13b) but not in (14). Given the natural assumption that tmesis splits a word into its immediate constituents, it follows that tmesis can occur only in finite verbs and in nominals with bare-root suffixes such as *ʹ-tar*, never in nominals with outer suffixes such as *-tár-*.

Finally, the compounds *nr̥-pā-tár-* 'protector of men' and *man-dhā-tár-* PN, lit. 'mind-setter', are *synthetic* compounds. We know from morphological and accentual evidence that synthetic compounds are formed by adding the compound suffix to the Noun and the Root together.[21] The constituent structure of these compounds is therefore simply this:

(15)



But bare-root suffixes are not eligible for insertion in this structure. Synthetic compounds are only formed with outer suffixes, as can be verified from their accentuation, see (10a,g). So the bare-root agent suffix *ʹ-tar-* cannot form synthetic compounds. Only *-tár-* is available in the structure (15), which underlies synthetic compounds. These formations are, however, rare because they are normally blocked by a special set of suffixes dedicated to the formation of synthetic compounds.

6 Conclusion

Meaning and morphotactics fit together seamlessly to explain the properties of the Sanskrit agent nouns. The systematic differences between *ʹ-tar-* and *-tár-* in case assignment, adverbial vs. adjectival modification, morphological distribution, parallelism with other agent suffixes, preverb accentuation, tmesis, and compounding are all explained by the fact that *ʹ-tar-* is a tensed bare-root suffix and *-tár-* is unrestricted.

[21] Morphological evidence shows that in synthetic compounds neither Noun + Root nor Root + Suffix are constituents, and accentual evidence shows that the suffix determines the accentuation of the entire compound, which by the reasoning of §4 entails that they are sisters of it in the morphological constituent structure of the word; see Kiparsky 2010:172–6 for a fuller development of this point.

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Rigvedic *u* and Related Forms Elsewhere: A Reassessment Forty Years Later*

JARED S. KLEIN

1 Recapitulation

In the past seventeen years the employment of the particle *u* in the Rigveda, together with related forms elsewhere, has been addressed in two papers (Dunkel 1997, Catt 2012). Because I am responsible for the only full-length treatment of this particle (provisionally, PIE *$*h_2(é)u$*), I will take the happy opportunity afforded me to honor Stephanie Jamison, whose career-long engagement with the Rigveda has enriched us all, as an occasion to reassess my discussion and analysis of Rigvedic *u*. There is all the more reason to do so in that it has now been forty years since my original treatment of this form (Klein 1974), and a recently completed study of stylistic repetition in the Rigveda (Klein, in preparation) has afforded me a view of this particle from a broader perspective, which I believe can contribute further to our understanding of this difficult word.

In my dissertation and the monograph and article based on it (Klein 1974, 1978a, 1978b) I subjected *u* to a complete synchronic analysis and found it to be associated with two basic types of constructions: coreferentially anaphoric sequences of the sort *yá- … sá/tá- u* 'which one … that one' (e.g. VIII.21.9ab *yó naḥ … / prá vásya āninā́ya tám u va stuṣe* "The one … who has led us forth unto what is better, that one do I praise for you") and *sá/tá- … sá/tá- u* 'that one … that one' (e.g. II.2.5ab *sá hótā víśvam pári bhūtv adhvarám̐ / tám u havyaír mánuṣa ṛñjate girā́* "Let that one as Hotar surround every worship. Straight unto him do the men go with their oblations, with their song") as well as conjoined structures of the sort I.139.4a *áceti dasrā vy ù nā́kam ṛṇvathaḥ* "(Your chariot) has been perceived, O wondrous ones, and you two open up heaven." Mediating between these two types are large numbers of passages,

*Because I have written at length on *u* and its congeners in Greek and Gothic (Klein 1978a, 1978b, 1985, 1988, Klein and Condon 1993), and this material is widely available, I will here keep repetition of points I have made in the past (including large numbers of cited passages) to a minimum. The best synopsis of my views prior to this article may be found in Klein 1997.

amounting to just over 30% of its total occurrences in the Rigveda,[1] in which *u* is associated with iteration (anaphora in the rhetorical sense), whether of concretely referential pronouns (e.g. IV.8.4ab *sá hótā séd u dūtyàm / cikitvā́ṅ antár īyate* "That one is the Hotar; that one alone understanding goes between [heaven and earth] on his embassy") or of words belonging to other parts of speech which are not concretely referential (e.g. VIII.3.20a *nír agnáyo rurucur nír u sū́ryaḥ* "Out shone the fires, out the sun," I.34.2d *trír náktaṃ yāthás trír v aśvinā dívā* "Thrice do ye drive by night, thrice, O Aśvins, by day," VII.86.8c *śáṃ naḥ kṣéme śám u yóge no astu* "Luck let there be for us in peace, luck in war," II.35.15ab *áyāṅsam agne sukṣitíṃ jánāya / áyāṅsam u maghávadbhyaḥ suvr̥ktím* "I have extended, O Agni, secure dwelling to the folk, I have extended a hymn to the liberal ones"). In all these instances I have purposely refrained, at this first pass, from assigning a translation to *u*, because that is one of the things that is at issue. I will apply the same treatment to another set of passages in which iteration does not occur, but where *u* seems to be associated with anaphora in the linguistic sense (coreference), e.g. VIII.44.6c *agním īḷe sá u śravat* "Agni do I summon. He shall listen."

In all of these cases there are two possible readings of *u*: it may be taken as purely associated with the repetition (in the iterative group) or the coreference (in VIII.44.6c) or it may be interpreted as conjunctive. In the latter case, we would amend our translations of all of the passages just cited to include the word 'and' and assign this value specifically to *u*. That would mean that *u* in these passages is a coordinate conjunction. But that would create a discontinuity (at least in translational terms) with the value of *u* in the correlative sequence *yá-* ... *sá/tá- u*, because in this latter construction *u* cannot be interpreted as meaning 'and' (*'which one ... and that one'), i.e. it cannot be a coordinate conjunction. Nevertheless, there does appear to be a bridge between the two, in that even in the correlative construction *u* is marking relatedness or linkage between the two clauses.

Because of this functional bridge, and because of the fact that *u* cannot be taken to mean 'and' in the correlative construction, I enriched my synchronic analysis of *u* with a diachronic dimension. Separating the correlative employment from the iterative anaphoric employment, I took the type *tám* ... *tám u*, which shows a sequence anaphoric in both the linguistic and rhetorical senses, as a *Gelenkstelle* which led to the subsequent employment of *u* as a coordinate conjunction, first in sequences of the type *tám* ... *tám u*, which was ambiguous as to coreference and conjunction, and then in sequences of the sort *sám* ... *sám u*,[2] *tríḥ* ... *trír u*, *kím* ... *kím u*, *áyāṁsam* ... *áyāṁ-*

[1]The actual figure, which includes both identical and polyptotic iteration, is 31.3%, representing 149 of the 476 certain occurrences of *u* in the Rigveda (leaving out, for the purposes of this paper, 25 appearances of the otherwise-to-be-explained *u loká-* and those instances where the *padapāṭha* text reads *o iti* in combination with a preceding word and *u* is not to be metrically restored).

[2]I took this sequence as well as *śám* ... *śám u*, *t$_u$vám* ... *t$_u$vám u*, and, at a greater remove, *áyāṃsam* ... *áyāṃsam u* to be based formulaically on *tám* ... *tám u*. Note in particular the metrical equivalence of the following, each of which shows the repeated term located in line-initial and break-initial posi-

sam u, etc., in all of which the sequential forms were anaphoric in the rhetorical but not the linguistic sense. (On the two senses of the term "anaphora" see Klein 1987.[3]) The occurrence of *u* in contexts where material reference was no longer a feature of the word which *u* followed led to the dropping of the anaphoric feature (whether understood linguistically or rhetorically) from the descriptive environment associated with the occurrence of *u* and its subsequent employment as a simple coordinate conjunction that could follow any domain-initial word in coordinate conjunctive value (cf. I.139.4a cited above). A subsidiary but nevertheless important development, according to my 1974, 1978a, and 1978b scenarios, was the movement of *u* to initial (cataphoric) position within the "diptych inverse" *sá/tá- u* ... *yá-* (e.g. VI.18.1a *tám u ṣṭuhi yó abhíbhūtyojāḥ* "That one praise, who is of superior strength") based upon the co-occurrence of the types *yá-* ... *sá/tá-* and *sá/tá-* ... *yá-* in passages not containing *u*, with similar expansions of the range of *u* to cataphoric[4] and eventually inversely conjunctive value, e.g. VIII.64.6ab *vayám u tvā dívā suté / vayáṃ náktaṃ havāmahe* "We call thee by day to the pressed (soma) (and) we (call thee) by night," X.32.8a *adyéd u prā́ṇīd ámamann imā́hā* "He has just today breathed. (And) he has tarried (all) these days."[5] Furthermore, by a conflation of the types X ... Y *u* and X *u* ... Y we find a sequence X *u* ... Y *u*, e.g. X.127.3 *nír u svásāram askr̥ta / uṣásaṃ devy ā̀yatī́ / ápéd u hāsate támaḥ* "The heavenly one coming hither has replaced her sister dawn, and the darkness shall withdraw."[6]

In taking my analysis of *u* from the synchronic to the diachronic plane, I was of course engaging in an act of internal syntactic reconstruction, and I was guided by the translational aspect of the problem. For it seemed to me that a shift from a more abstract, less easily translatable value (*yá-* ... *sá/tá- u*)[7] to the more concrete conjunc-

tion: X.107.6a *tám evá ŕ̥ṣiṃ tám u brahmā́ṇam āhuḥ*, I.91.18a *sáṃ te páyāṅsi sám u yantu vā́jāḥ*, VII.86.8c *śáṃ naḥ kṣéme śáṃ u yóge no astu*, II.9.2a *t$_u$váṃ dūtás t$_u$vám u naḥ paraspā́ḥ*.

[3]Perhaps because it is hidden away in a festschrift, perhaps because some would find its conclusions banal, this article, to my knowledge, has never been cited by anybody other than myself (repeatedly); yet I consider it to occupy a central position in my writings, because in it, after tracing the history of the term 'anaphora' in both its senses, I articulate forthrightly what I consider to be an important cross-linguistic principle of discourse organization, viz. that in the structuration of texts rhetorical anaphora tends to serve as a higher-order *outil* of cohesion, while coordinate conjunction typically operates at a lower level. All subsequent work I have done on repetition has confirmed for me this principle. Because, moreover, rhetorical anaphora and conjunction are both cohesive processes, this explains why the former is normally asyndetic. It is precisely in the case of *u* that this statement fails in the Rigveda, and this, I believe (see §2 below) has massive implications for the function of *u* and, in general, PIE *h_2(e)u*.

[4]In the largest sense, meaning that it points ahead to some following structure, whether conjunctively or anaphorically.

[5]This inverted construction is actually slightly more frequent than the type with *u* in sequence-internal position (231× : 212× among cases that are *prima facie* clear). However, it is not always easy to tell whether or not sequence-initial *u* is meant to be anaphoric within a larger discourse context.

[6]Unlike the corresponding type X *ca* Y *ca*, which encompasses 371 of the 1020 non-repeated occurrences of this particle in the Rigveda (36.4%), the sequence X *u* Y *u* involves only 28 of the 476 certain occurrences of *u* (5.9%).

[7]Unless one were to treat this as meaning 'which one ... that *very* one'. This type of meaning, and its proper characterization, will be taken up in §2 below.

tive 'and' was more likely than the reverse (the principle of ***utrum in alterum***), the idea being that speakers confronted with a structure of the sort *sá/tá-* . . . *sá/tá- u* would be likely to reinterpret the discourse-level particle in the simplest way possible, reading it directly off the surface structure and assigning it a conjunctive value. And when I found Homeric Greek *aû* (Klein 1988) and Gothic *-(u)h* (*h_2u k^we) (Klein and Condon 1993) to exhibit exactly the same syntax as *u*, that only served to confirm in my mind the correctness of the internal reconstruction. To repeat, therefore, the critical point in my analysis was that in the construction *yá-* . . . *sá/tá- u*, the particle *u* cannot be interpreted as a coordinate conjunction, but in *sá/tá-* . . . *sá/tá- u* and in the bulk of its other occurrences it can.

To return to the synchronic plane, it is clear, as indicated above, that the value of *u* as a marker of discourse continuation is essentially the same in the constructions *yá-* . . . *sá/tá- u* and *sá/tá-* . . . *sá/tá- u*, etc.; and therefore if one wishes to operate at a very abstract level, one could speak of a unitary synchronic value under the rubric "discourse continuation" or even "conjunction". The latter would seem to be favored by Hock's arguments (1989), based on phenomena widely found in other OV languages, including Turkish and the Dravidian languages of South Asia, that correlative structures may indeed be viewed as conjoined; it is just that they are not coordinately conjoined. It then could be said that the function of *u* in the Rigveda is unitarily that of sentential conjunction but not necessarily coordinate conjunction. Since the same syntax is observed in the cases of Homeric Greek *aû* and Gothic *-(u)h*, one could then posit that same value for PIE *h_2(é)u, the apparent source of all three forms, and dispense with an original anaphoric function across the board.

It is precisely this approach that is taken by Catt (2012). It is also implicit in Dunkel's treatment (1997).[8] Neither author sees a need for an internally reconstructed stage in which *u* (*h_2(é)u) was a particle of anaphora. This latter was intuitively satisfying to me, largely because I felt more comfortable thinking in terms of translational value, but it is true that Catt's analysis allows us to specify a unitary set of values for *u*. And, what is more, these values are based on the primary datum of syntactic usage, rather than the secondary issue of translatability.

2 Reassessment

The fact that the two articles in the literature that have commented upon my analysis both reject the "anaphoric value" as original is for me sufficient grounds for revisiting it. In fact, it had always bothered me that the internal syntactic/semantic reconstructions I made on Rigvedic *u* and Homeric Greek *aû* (Klein 1988) stand on a different level from that of Gothic *-(u)h* (Klein and Condon 1993); for the texts of both the

[8] Dunkel, however, gives very little synchronic linguistic treatment of *u* and bases his analysis almost entirely on etymological considerations. This is, from my perspective, methodologically backward (see §4 below).

Rigveda and Homer were composed over a period of centuries and therefore possess immanent diachrony. In both of these cases it would indeed be conceivable that a particle like *u* could have undergone a syntactic/semantic change over the period of composition of the text. Biblical Gothic, however, presents us with a literary language presumably created *ex nihilo* by one man. This text, therefore, possesses no diachrony whatsoever. If Gothic *-(u)h* admits of the same internal reconstruction as Rigvedic *u* and Homeric Greek *aû*, then that reconstruction must be prehistoric within the language, not a development within the text. Moreover, if the Rigveda, Homer, and Gothic all present us with the same synchronic employments of *h_2(é)u(-), the internal reconstruction of the syntax/semantics leading to these synchronic states is itself to be taken as prehistoric in all three,[9] meaning that it is already Proto-Indo-European, and the real level of the internal syntactic/semantic reconstruction, if indeed one is to be made, is that of Proto-Indo-European itself—a level that is much less controllable because of the absence of texts in a reconstructed proto-language. But equally importantly, the internal reconstruction is too powerful. That is, given any particle showing both translatable coordinate and untranslatable non-coordinate conjunctive values in any human language, it would automatically select the non-coordinate value, clearly the *lectio difficilior*, as diachronically primary according to the principle of ***utrum in alterum***.[10] This seems too mechanical and privileges the semantic analysis relative to the syntax.

To summarize, if we accept Catt's proposal that *u* is simply a non-coordinating conjunction and drop the internal reconstruction, we are able to bridge the gap between the construction types *yá-* . . . *sá/tá- u* and *sá/tá-* . . . *sá/tá- u*, etc. and arrive at a unitary synchronic and (as far as we can tell) diachronic description of *u*. However, I think we may be able to go further.

Let us first focus on the "anaphoric value" that I originally assigned to *u*. Note that such a value probably requires some further explication, because the **só/tó-* pronoun is itself anaphoric, so that the actual value of *u* would at best have been to highlight or focus the anaphora. It is here that my more recent research (since 1998) into stylistic repetition in the Rigveda has something to offer to this problem. In that enterprise,[11] which has a completely different focus from my work on *u*, although it rejoins it under the rubric of Rigvedic discourse structure, I have demonstrated that the queen of all repetition types is anaphora ***sensu stricto***, the exact repetition of a form at the

[9] Not to mention that a comparison of the different structures involving *u* against Arnold's metrically based internal chronology of the Rigveda (1905) shows that all were present already in the earliest period of Rigvedic verse composition.

[10] To take two notable cases, both Greek *dé* and Biblical Hebrew *wĕ-* are employed on occasion apodotically following a relative clause; but to my knowledge nobody has proposed that this was the original value of either of these conjunctions.

[11] In its present stage, scattered hither and yon (mostly in Festschriften) among twenty-two *disiecta membra* which constitute the individual published chapters of this project, to be refashioned as a book (Klein in preparation).

beginning of successive word groups or cola (see, e.g., Klein 1999). Again and again, however, I have discovered that where iterative anaphora occurs together with overt conjunction, it is nearly always ***u*** that is involved. That is, ***u*** has been specialized, in a way found with no other particle, as a conjoiner of identically repeated words. And the same would appear to be the case with its cognates in Homer and Gothic. I have characterized ***u*** in these studies as an "anaphoric conjunction". This occurrence of ***u*** to the near exclusion of all other conjunctive particles in the case of anaphora is in part a consequence of the fact that the domain of anaphora (as opposed to adjacent repetition or epanalepsis) is nearly always sentential, and ***u*** is a sentential clitic;[12] but it is a real feature of the employment of ***u*** and must be somehow accounted for.

In n. 4 above we suggested the possibility of translating ***u*** in the structure *yá-*...*sá/tá-* ***u*** as 'which one... that *very* one' and said we would return to this possibility. Now is the time to confront it squarely and to attempt to understand how to characterize such a translational value. Note first that if this is right, it does provide us with an overt translation for ***u*** in this structure. The meaning would still be non-coordinately conjunctive but would carry the further nuance of focus. That is, it would not be anaphoric per se but would rather focus the material identity of the anaphoric link between *yá-* and *sá/tá-*. But this same explanation would apply to all the other sequences involving identity of reference or of lexical item. Let us provisionally term this relationship "identity focus". Such focus differs from a putative anaphoric value in that we no longer have to impute redundancy to ***u*** (the actual anaphora being signaled by *sá/tá-*), but rather a very tangible focusing of the anaphora. There are therefore two functions here: anaphora itself (signaled by *sá/tá-*) and focus upon this relationship (signaled by ***u***). As noted, this same characterization would apply to ***tám*** ...***tám u***, ***śám*** ...***śám u***, ***níḥ*** ...***nír u***, ***tríḥ*** ...***trír u***, ***áyāṅsam*** ...***áyāṅsam u***, as well as (in strictly coreferential terms) ***agním*** ...***sá u***. It need hardly be said that if the value of ***u*** in these passages is identity focus, this would severely limit the scope of the particle and vastly reduce the likelihood that it was a simple conjunction.

3 The importance of *sá/tá- u*

As justly stressed by Catt (2012), ***u*** is an enclitic particle with sentential scope and as such is a Wackernagel's Law clitic occupying second position within the clause, meaning that it follows any type of word that can occur in clause-initial position, be it a relative, interrogative, anaphoric, or deictic pronoun, a preverb, verb, noun, etc. As Catt rightly emphasizes, this means, in principle, that the occurrence of ***u*** after *sá/tá-*, which I privileged in my analysis, should be of no greater significance than its occurrence following any other first position item in the Rigveda, and that the organization

[12]Unlike *ca*, which, while having a broad range of coordinate conjunctive usage, is fundamentally a word-level conjunction.

of my discussion of ***u*** based on the type of word it followed in my dissertation and 1978 monograph might have obscured the overall syntax of the particle.[13]

But in fact there are two very important reasons for privileging the collocation **só/tó- h_2(é)u* in the Rigveda, Homer, and Gothic, one synchronic, the other comparative and therefore implicitly diachronic. To begin with the first, as noted above, there are a very significant number of instances in which ***u*** appears in initial position of sequences, whether anaphoric or conjunctive. In a number of such passages the sequence begins the hymn or its first term does not appear to relate to the preceding but only the following material. The easiest way to account for such cases is to understand them as the result of the coexistence of the types *yá-*...*sá/tá-* and *sá/tá-*...*yá-* in sequences not containing ***u***.[14] Based on this circumstance, an inversion of *yá-*...*sá/tá-* ***u*** to *sá/tá-* ***u***...*yá-* seems unproblematic, especially in view of the fact that ***u*** retains its value as a marker of identity focus irrespective of whether it is in sequence-initial or sequence-internal position. It is only the text-linguistic role with which it is associated that has changed, from anaphoric to cataphoric. Consequently, it could share the same collocational features it had when in sequence-internal position. But this scenario presupposes at least a salient role for the collocation *sá/tá-* ***u***.

The second reason I believe the collocation **so/to- h_2(é)u* deserves to be privileged is that in Vedic, Homeric Greek, and Gothic the particle and the pronoun are collocated in such a way as to produce either what is treated in Gothic grammar as a real paradigm (Gothic *sah/þanuh*) or a virtual one (Vedic ***sá (íd) u***, ***tám u***, ***tásmā u***, ***tásya (íd) u***, ***tá u***, ***tā́ṅ u***, ***tā́(u) u***, ***sā́ (íd) u***, ***tā́(ḥ) u***, ***tā́bhir u***, and ***tád u***, Greek ***tòn (d') aũ***, ***tõn (d') aũ***, ***toĩsin d' aũ***, ***hē d' aũ***, and ***tè̃n d' aũ***[15]). Furthermore, we may add to this Toch B *su/ce̯u*, the avatar of **só/tó-*, which is characterized by Krause and Thomas (1960) as "sich funktionell einem anaphorischen Pronomen ... sehr nähern[d]," while the corresponding ***u***-less *se/ce* possesses a purely deictic value 'this one'. Therefore, all four Indo-European subgroups which preserve the **só/tó-* pronoun in precisely this suppletive form attest a collateral collocation **só/tó- h_2(é)u(-)*.[16] Admittedly, as Catt suggests, this accretion of the pronoun and the particle is surely in part owing to the fact that the **só/tó-* pronoun was almost certainly a frequent first-position element at a certain level of PIE, occurring in an entire range of case forms, and so its collocation

[13]This is implicit in Catt's statement (p. 57) that "despite all that has been written about ***u***, we still do not have any studies that examine the particle in its proper context." Nevertheless, if I were to redo my study knowing what I do today, I would not hesitate to use the same organizational approach, both for its heuristic value and because it is a natural way of handling syntactic configurations, particularly in an orally composed formulaic text. But most importantly, because it is dictated by the nature of the data.

[14]In view of the low ratio of sequences of the type X ***u*** ... Y ***u*** (cf. n. 7), this seems like a much better solution than Dunkel's suggestion (1997) that X ***u*** ... Y has been truncated from the former structure. Nor do I believe that it has been calqued on the type X ***ca*** ... Y, owing to the difference in function between ***u*** and ***ca***.

[15]I take ***dé*** to be secondary in these instances. For discussion cf. Klein 1988:250.

[16]To these can of course be added Greek ***hoũtos*** (**só-u-to-*) and Arcado-Cypriot and Cretan ***onu***, employed anaphorically and probably based on original **tóm u*, as described by Dunkel (1997:168).

with the Wackernagel particle ***u*** is not surprising. But it is nevertheless a cardinal fact about these languages, and therefore the collocation must be very old. Furthermore, the one conjunctive particle whose shallow prehistory is clear, *k^we, shows no propensity whatsoever to occur after this pronoun, despite its status as a Wackernagel particle. I take this fact to signal a radically different profile for this item, which can conjoin constituents at all levels, from the word to the phrase.

Consequently, there must have been something about the particle ***u*** that fostered its frequent occurrence with the ***sá/tá-*** pronoun to the exclusion of *k^we. The functional difference that immediately imposes itself is scope, that of ***u*** being narrower than *k^we. It is only in this way that we can explain the massive propensity for ***u*** to appear in coreferentially or iteratively anaphoric sequences.[17] This scopal difference is perhaps visible in X.15.13ab ***yé cehá pitáro yé ca néhá / yā́ñś ca vidmá yā́m̐ u ca ná pravidmá*** "Those fathers who are here and those who are not here, those whom we know and those whom we do not know . . ." Although ***ca*** is here a constant across all conjoined members, in the final member it is preceded by ***u***. This could be taken to signify that ***u*** bears a narrow scopal relationship with ***yā́n***, whereas ***ca*** has broader clausal scope.[18] Therefore, from an Indo-European perspective I cannot agree with Catt's contention (2012:54) that "[t]he fact that ***u*** is hosted by an anaphoric pronoun 90 times tells us no more about the particle than the 85 occurrences of ***u*** after preverbs."[19]

In reassessing the value of ***u*** to be fundamentally that of a marker of identity focus, I have admittedly not yielded much ground in my reassessment of the particle. After all, "particle of anaphora" and "particle of identity focus" do not differ by very much. However, by recognizing the latter value I have removed any basis for characterizing the particle as "redundant" in a structure such as ***sá/tá- . . . sá/tá- u***, as I carelessly did at one point in my 1978 monograph (1978b:194). Rather, its original full-blooded focusing value in such sequences, as well as in iterative sequences generally, must at one point have been palpable. The conjunctive use, especially in instances where there is identity of neither referent nor lexical item, would still be a development of the focal value, beginning with structures of the type ***tám . . . tám u***, etc. An insight into how this might have happened is perhaps offered by Kroon (1995), who theorizes the ex-

[17]The precise figure, percentagewise, is hard to nail down because of many ambiguous passages, particularly in those cases that I had earlier termed "formulaic"; but a maximum figure that I have arrived at is 280 instances of coreferent or iterative structures among 476 undoubted cases of ***u*** (58.8%). Even if this figure were reduced by 25 instances or so, the calculation would still come to more than 50%, a staggering figure under the interpretation of ***u*** as a simple sentential conjunction insensitive to any more precise features of its syntactic environment.

[18]On the other hand, in VI.66.3ab ***rudrásya yé mīḷhúṣaḥ sánti putrā́ / yā́ñś co (= ca ū) nú dā́dhṛvir bhā́radhyai*** "Which ones are sons of the reward-giving Rudra and which ones she (viz. Pṛ́śni) (was) straightway able to support for bearing . . .," ***u*** has been presumably moved to the right of ***ca*** based on the formulaic collocation ***ŭ nú*** (18×). This passage shows just how difficult it is to make syntactic determinations in an orally composed, formulaic text.

[19]Here in any event Catt would need to distinguish between sequences of iterated and non-iterated preverbs. Only the former would show ***u*** in its role as a marker of identity focus. For a further consideration militating against Catt's contention, see §4 below.

istence of three layers in any discourse: that of the simple content or propositional value of the text (representational layer), that of the rhetorical presentation of the text (presentational layer), and that of interaction between speaker/writer and audience (interactional layer). The role of a focus particle belongs to the presentational layer, which is more abstract than that of simple content. Consequently, confronted with sequences such as ***tám . . . tám u***, ***sám . . . sám u***, etc., a hearer might well be inclined to interpret the particle on the most basic textual level, that of propositional meaning, and assign it the value 'and'. That this is in fact what happened is evidenced by the employment of ***u*** in the Rigveda in over 40% of its occurrences as a clausal conjunction, where no scopal effects are perceivable. This is also manifest, to my mind, in the syntax of Homeric Greek ***aũ***. Thus, in Klein 1988 I attributed much importance to the collocation ***hoí . . . tõn aũ*** (= ***yá- . . . sá/tá- u***) that appears at *Iliad* 2.615–18, 676–8, 681–5, and 695–8, each of which is an entry within the catalogue of ships, a section of the *Iliad* which has often been deemed very old, most recently by Tichy (2010). The fact that this construction occurs only here in the Homeric epics I take to be an index of archaism. In fact, most of the occurrences of ***aũ*** in the *Odyssey*, the later of the two epics, show adversative, additive conjunctive, and continuative-enumerative values, paralleling the clause-conjoining value of Rigvedic ***u***.

4 Etymology

At this point we have gone as far as we can without taking into account the question of the etymology of ***u***. In short, I continue to maintain that the particle in question is originally the same as that seen in the Vedic pronoun ***asaú/amúm*** and that it had distal deictic value. Deixis is a multivalent phenomenon that can have reference to time or place, here/there or now/then. It may relate to that which is before the eyes (Bühler's ***demonstratio ad oculos*** [1934]) or that which is hidden or dimly perceived (***Deixis am Phantasma*** [ibid.]). Such notions are the very stuff of metaphor. Thus, I have never doubted that the opposition within the Indo-European verb between the endings ****-ti*** and ****-t(a/o)u*** (e.g. Skt. ***bhárati/bháratu***, Hitt. ***ēšzi/ēštu***, Goth. ***bairiþ/bairadau***, OIr. ***beirid/berad***) marking present indicative (what is factual/evident) and imperative (what is an imagined action attendant upon an obliquely expressed order) is rooted in a deictic opposition between ***i*** and ***u***.[20] I am also tolerably certain in my own mind that the interrogative value of Gothic ***-u*** is another extension of distal deixis to the axis of certainty/uncertainty, a question being a classical indication of uncertainty.

A similar axis is that of exophoric vs. endophoric relations. In a pronoun like Skt. ***asaú/amúm*** the distal deictic value of ***u*** is exophoric: it refers to distance in the real

[20]The absence of aspiration in Sanskrit (****-thu***) and of a laryngeal in Hittite strongly suggests that this particle did not possess an initial laryngeal. See below on Luwian ***-ḫa***. But this would mean that unless something beyond our ken is going on here (not out of the question for a phonologically exiguous item), we would need to abandon our etymological equation of ***u*** with Homeric ***aũ*** and Gothic ***-(u)h***. This is why I characterized the reconstruction *******$h_2(e)u$ above as provisional.

world. But *sá/tá- u* looks to me like a later recollocation of (this time) **sá/tá-* with *u* but now employed not in exophoric but endophoric value, viz. referring not to the space of the external world but by metaphorical extension to that of the text. One could model this at its point of origin by translating *yá- … sá/tá- u* as 'which one … that one there (i.e. mentioned previously)'. Cf. the use of *above* and *below* within expository writing (e.g. *see above*, *see below*). This is itself an endophoric metaphorization of exophoric relations. Or compare the metaphorical employment of purely spatial relations like "upon", "beyond", "further", etc. in such conjunctions as Classical Armenian *ew* and Lat. *et* 'and', or even the adverbially conjunctive use of English *furthermore*. The process is the same in all of these: all are the result of endophoric metaphorizations of exophoric relations.[21] And so is Ved. *yá- … sá/tá- u*.[22]

From here, the development to a particle of "identity focus" is a very short step, 'that one there (i.e. previously mentioned)' being easily understood as 'that very one' (note the narrow scope of *u* in this scenario). And the same would be true in all instances of anaphoric repetition, whether they show anaphora *sensu stricto* or polyptotic anaphora. Moreover, the same mechanism can be applied to cases of *u* in cataphoric position, except that in this case the original 'there' refers to a subsequent relationship. Finally, if this etymology is correct, it effectively refutes Catt's statement that the occurrences of *u* after *sá/tá-* tell us no more about the particle than its occurrences after *sám*, because it means that *u* belongs originally to the sphere of (distal) pronominal reference, which has nothing to do with *sám* or other preverbs.

I find this exegesis much more linguistically satisfying than Dunkel's assertion that *u* represents a syncretism of two separate PIE elements: conjunctive *h_2o and distal **u*. First of all, positing such a syncretism should be a last resort, to be attempted only when one cannot find any common underlying function for a synchronically polyvalent element. Second, note that his putative *h_2o, which hardly imposes itself, shows no phoneme in common with *u*. In fact, the only recognizable direct avatar of *h_2o is Luwian *-ḫa*. But even if one were willing to grant Dunkel's **o/u* suppletion as an Indo-European process, until somebody produces a linguistic study of the employment of the Luwian particle (does it also present the profile of a focus particle, or is it, as I suspect, like *k^we, a static conjunction?[23]), I see no reason to bring it into the discussion of Rigvedic *u*.[24] Etymology, as a substitute for hard-won synchronic study, is cheap, especially in the case of a word consisting of one phoneme. When Dunkel says, in italics no less, that my analysis of *u* is "utterly incompatible with the comparative evidence taken as a whole," what he really means by "evidence" is whatever decontextualized "etymological evidence" strikes his fancy; otherwise he could not in good faith cite Klein 1988, a detailed study of Homeric *aũ* in comparison to Rigvedic *u* and refer obliquely to Klein and Condon 1993, a complete synchronic and comparative study of Gothic *-(u)h* in relation to both *u* and *aũ*, and still make such a statement.[25] As for distal **u*, Dunkel would take this particle not in metaphorized endophoric value, as I have done, but rather in its original exophoric value. Consequently, with absolutely no philological control, he cites a number of passages, completely decontextualized from the syntax of *u* as a whole, in which he thinks he sees the original distal deictic value of the particle retained. This complete disregard for the overall syntax of a linguistic item, its dossier, is methodologically vacuous[26] and renders the unctuous phrase "questions of method" in the title of his article a parody.

5 Conclusion

To summarize, my reassessment of the syntax of the Rigvedic particle *u* has resulted in one refinement. Instead of speaking of an anaphoric value of *u*, I would now characterize the particle as a marker of identity focus. This removes the absolute gap, at least on the level of translatability, which I originally posited between the type *yá- … sá/tá- u* and all other usages of the particle and allows for an easy continuity of employment of the particle. I will no longer call the posited transition from focalization to conjunction an "internal reconstruction" but rather simply the reinterpretation of a surface structure. Moreover, because it is such a simple and natural reinterpretation, it could have occurred independently in the prehistories of Indic, Greek, and

[21] As are also Gk. *hoũtos* and Arcado-Cypriot, etc. *onu*.

[22] Catt finds this exegesis "puzzling" (2012:56–7); but perhaps I was heretofore not explicit enough in my rationale for this development. However, his statement that "*sá/tá- u* does not appear to refer to something additionally more anterior in the discourse" (why "additionally more"?) oddly misses the whole point: *sá/tá- u* does indeed refer to something anterior or, in its cataphoric value, posterior in the discourse.

[23] For the terms "static conjunction", which is associated with simple sentential nexus, often bearing no ordered relationship (*The sun was out and the temperature was perfect*), "sequential nexus", which is associated with narrative continuity and textual structuration, and frequently bears some relationship to the time axis (*John spoke with Bob, and Bob felt relieved*), and "iterative nexus" (*The Lord shall grant strength to his people, the Lord shall bless his people with peace*), cf. Klein and Condon 1993:4. The avatars of PIE *k^we, Greek *kaí*, Latin *et*, and Gothic *jah* generally signal relationships of the first type; Greek *dé* is primarily associated with the second type; and Rigvedic *u*, Homeric Greek *aũ*, and Gothic *-(u)h* are normally at home in the second and third types. Put another way, the first type belongs primarily to Kroon's representational level, whereas the second and third types belong normally to the presentational level of discourse.

[24] Dunkel's most recent word on the subject (2014.2:335) simply repeats his earlier assertion, again with no philological or linguistic analysis to back it up.

[25] Dunkel apparently sets a very low bar for what he considers a "study". This is evidenced by the opening sentence of his 1997 article, which begins, "When studies of mine on the R̥gvedic particles mentioned above [sc. *u* and invariable *sá* in the title] were subjected to critique by J. Klein (1988) and S. Jamison (1992) …" In fact, what I critiqued was not a "study" of *u* (which Dunkel has never undertaken) but a few anecdotal remarks in Dunkel 1982–3 which betray no serious engagement with either Rigvedic *u* or Homeric *aũ*.

[26] It is a classical example of what I have elsewhere (Klein 2003) termed the "little Jack Horner approach" ("put[s] in his thumb and pull[s] out a plum"). Dunkel might as well have picked his cited examples randomly out of a hat. This is not to say that there might not be some instances in the Rigveda where the original exophoric distal deictic value of *u* still shimmers through. Indeed, I suspect that this is what is going on in some instances of hymn-initial *u* following a preverb, such as VII.63.1ab *úd ᵤv eti subhágo viśvácakṣāḥ / … sū́r̥yah …* "Upward there goes the auspicious sun, whose eye is upon all," I.50.1ab *úd u tyáṃ jātávedasaṃ / deváṃ vahanti ketávaḥ* "Upward there do the beacons convey this heavenly Jātavedas," etc. For the record, Dunkel does include a passage similar to these (VII.78.3a), but the rest of his alleged cases are an unsifted hodgepodge.

Gothic. The employment of *u* in coreferential, iterative, and conjunctive sequences is already in play at the earliest level of the Rigveda. Over time, both in the Rigveda[27] and in Homeric Greek, the conjunctive value tended to become more salient, so that the characterization of the particle as conjunctive is ultimately appropriate.[28]

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[27] But not in the Brāhmaṇas. Cf. Klein 1978b:184–7.

[28] This designation is especially true of Latin *autem*, however it may relate in its etymological structure to Rigvedic *u*, Homeric *aû*, and Gothic *-(u)h*. The analysis of this particle by Kroon (1995) brings out many similarities in particular with Homeric *aû*.

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The Attributive Locative in the R̥gveda*

MASATO KOBAYASHI

1 Introduction

In many languages of the world, the locative case is marked by an adposition like English *in*, *on*, or *at*, or by a case affix as in Sanskrit. In languages which form an adpositional phrase to denote locus, it is not uncommon that the adpositional phrase directly modifies a noun phrase, as in the English phrases *old folks at home*, *a summer in Berkeley*. Some languages have a special morpheme to mark a locative noun phrase modifying another noun in the sense of 'which is in/on/at . . . ' For example, Old Japanese *-tu* is exclusively used to form an adnominal locative phrase such as *oki-tu siranami* 'white wave in the offing'.[1] We call such an adnominal locative NP the *attributive locative*. In this paper, we will first discuss whether the attributive locative is possible according to Sanskrit native grammar, and then examine whether the attributive locative is attested in the R̥gveda, the oldest extant source of Sanskrit.

Along with Iranian, Balto-Slavic, and Anatolian, Indo-Aryan has an adpositionless morphological locative case, which typically collocates with verbs to denote the locus of the verbal action. Through this study, we wish to address the question of whether the Indo-Aryan locative case originally covered only the relationship between a verb and the locus of its action, or the relationship between two noun phrases as well.

2 The problem

The R̥gveda is a metrical text. Since ellipsis is sometimes employed for metrical reasons, it is often difficult to decide whether a noun in the locative case is an adjunct of the verb or a modifier of another noun. For example, in RV 8.3.4cd *satyáḥ só asya mahimā́ gr̥ṇe / śávo yajñéṣu* ***viprarā́jye*** "Diese seine wahrhafte Größe wirdgepriesen, seine Stärke bei den Opfern **im Reich der Redekundigen**," the locative noun *viprarā́jye* 'in the realm of the poets' can be taken either as the locus of the action of the verb *gr̥ṇe* 'is praised', or as modifying the preceding noun *yajñéṣu* 'at the sacrifices' forming a larger NP. To the present author, the use of the locative to modify another noun sounds uncommon in the Vedic language, but there do exist suspected cases of such a usage, as the dual genitive-locative form *bāhvóḥ* in the following example:

> RV 2.11.6cd *stávā vájram* ***bāhvór*** *uśántaṃ / stávā hárī sū́ryasya ketū́*
> "Ich will die willige Keule **in** [deinen] **Armen** preisen, ich will deine beiden Falben preisen, die zwei Strahlen der Sonne sind."

Geldner takes *bāhvóḥ* in *vájram bāhvóḥ* 'Keule in [deinen] Armen' in a locative sense, and Grassmann (1873) also gives it under the locative of *bāhú-* in his dictionary, not under the genitive which is equally possible. The interpretation of Grassmann and Geldner probably comes from the context. Two stanzas before, in RV 2.11.4b *śubhrám vájram* ***bāhvór*** *dádhānāḥ* "Indem (wir) . . . die glänzende Keule **in deine Arme** legen," the poet uses *bāhvóḥ* in an unambiguously locative meaning with the participle *dádhānāḥ* 'placing'. Apart from the context, it is difficult for us to judge whether the original meaning was 'cudgel in your arms' with the locative or 'cudgel of your arms' with the genitive.

If the poet meant to say 'cudgel in your arms', he could have used one of several ways to express the location of a noun, for example a relative clause, as in RV 7.88.2c *svàr yád áśman* "Die Sonne, die im Fels(verschluß) ist" (cf. Gotō 2000:150 "Wenn das Sonnenlicht im Felsen [ist]," Jamison and Brereton "When the sun is in the rock"), a taddhita formation as in RV 5.50.4b *drónyaḥ paśúḥ* "das in der Holzkufe befindliche Tier" "the beast seeking the wooden cup [=soma]," a tatpuruṣa compound as in RV 1.139.11c *apsukṣít[aḥ . . . é]kādaśa* "[Götter, die ihr . . .] elf im Wasser wohnt," or a bahuvrīhi compound as in RV 1.15.7b *grā́vahastās[aḥ* "mit den Preßsteinen in der Hand." Of course, the existence of other ways of expression does not preclude the possibility of an attributive locative. If we are sure that attributive use of the locative denoting locus as in RV 2.11.6b *vájram bāhvóḥ* is not uncommon, it would help us determine whether *bāhvóḥ* here is genitive or locative, and how we should interpret other similar cases.

3 Pāṇini on the attributive locative

In Sanskrit, the locus of an action is denoted by a noun in the locative case, unlike Greek or Latin where the noun takes a preposition except for a few relic instances. In Pāṇini's grammar, Aṣṭ. 1.4.45 *ādhāro 'dhikaraṇam* (1.4.23 *kārake*) "A *kāraka* [participant in the verbal action] which serves as locus of action is termed *adhikaraṇa*" (Sharma) defines *adhikaraṇa* as the locus of the verbal action, and the seventh case-ending triplet *ṅy-os-sup*, which are the locative endings of the singular, dual and plural

*I wish to express my sincere gratitude to George Cardona, Dieter Gunkel, Hiroshi Kumamoto, and Werner Knobl for their kind comments on the earlier versions of this paper. All errors are mine alone, of course. The German and English translations of the R̥gveda are cited from Geldner 1951 and Jamison and Brereton 2014, respectively.

Abbreviations: a.: adjective; acc.: accusative; act.: active; Aṣṭ.: Aṣṭādhyāyī; du.: dual; f.: feminine; gen.: genitive; ipf.: imperfect; loc.: locative; m.: masculine; mid.: middle; n.: neuter; nom.: nominative; NP: noun phrase; pl.: plural; ppl.: participle; pres.: present; RV: R̥gveda; sg.: singular.

[1] For other similar examples, see Masica 1991:372f., Rijkhoff 2001:527f., and Dryer 2007:191.

numbers, is assigned to *adhikaraṇa* by Aṣṭ. 2.3.36 *saptamy adhikaraṇe ca* "The seventh case-ending triplet occurs after a nominal when *adhikaraṇa* 'locus' is to be signified [which is not otherwise signified]." According to this definition, the locative case marks an adjunct of a verb denoting the locus of the verbal action.

In addition to its use as a *kāraka*, the locative also occurs to express the relationship between nouns as well. In Aṣṭ. 2.3.39 *svāmīśvarādhipati-dāyāda-sākṣi-pratibhū-prasūtaiś ca* (36 *ṣaṣṭhī*, 38 *saptamī*), Pāṇini mentions the seven words *svāmin-* m. 'master', *īśvara-* m. 'lord', *adhipati-* m. 'ruler', *dāyāda-* m. 'heir', *sākṣin-* m. 'witness', *pratibhū-* m. 'surety, guarantor', and *prasūta-* m. 'offspring', as occurring with a noun in the locative or the genitive case. Similarly, in Aṣṭ. 2.3.40 *āyukta-kuśalābhyām cāsevāyām*, Aṣṭ. 2.3.43 *sādhunipuṇābhyām arcāyāṃ saptamy aprateḥ*, and Aṣṭ. 2.3.44 *prasitotsukābhyāṃ tṛtīyā ca*, the six adjectives *āyukta-* 'engaged', *kuśala-* 'skillful', *sādhu-* 'excellent', *nipuṇa-* 'adept', *prasita-* 'engaged', and *utsuka-* 'attached', are mentioned as occurring with a noun in the locative case (or the instrumental for the last two words). While nouns and adjectives taking locative nouns are explicitly, if not exhaustively, listed in these sūtras, Aṣṭ. 2.3.41 *yataś ca nirdhāraṇam* "A *ṣaṣṭhī* [=genitive ending] or *saptamī* also occurs after a stem which denotes many, from amongst which one is singled out" (Sharma) provides a rule that the locative case can be used for a noun denoting entities of which one is singled out.[2] These rules are exceptions to Aṣṭ. 2.3.50 *ṣaṣṭhī śeṣe*, where Pāṇini assigns the genitive case for relationships other than those mentioned so far. In other words, Pāṇini considered the genitive to be the default case for any unexplained relationship between nouns (including adjectives).

Even though Pāṇini recognizes only a few limited cases of the attributive locative such as singling out (*nirdhāraṇa*), some of his sūtras on compound nouns seem to presuppose adnominal use of the locative. For example, Aṣṭ. 2.1.42 *dhvāṅkṣeṇa kṣepe* (3 *samāsaḥ*, 4 *saha supā*, 9 *sup*, 11 *vibhāṣā*, 22 *tatpuruṣaḥ*, 40 *saptamī*) teaches compounds consisting of a noun originally in the locative case as the first member and *dhvāṅkṣa-* m. 'crow' as the second member, such as *tīrtha-dhvāṅkṣa-* 'fickle as a crow in a holy place' (Sharma). Aṣṭ. 6.3.9 *hal-ad-antāt saptamyāḥ saṃjñāyām* (1 *alug uttarapade*) teaches names containing a noun with a locative case ending as their first member such as *araṇye-tilakāḥ*, the name of a plant literally meaning 'sesame in wilderness'.[3] In addition to such compound rules, Pāṇini uses the locative in an attributive sense in his own sūtra, e.g. Aṣṭ. 1.3.4 ***na vibhaktau tusmāḥ*** "The dental non-continuants, *s* and *m* **contained in case endings** are not *it*." Of course, it may not necessarily reflect Pāṇini's own language, if words like *vartamāna-* pres.ppl.mid. 'being, present' are omitted here due to the highly condensed sūtra style of the Aṣṭādhyāyī, as the Kāśikā-Vṛtti comments.[4] In later Sanskrit, an adnominal use of the

[2] Furthermore, according to Aṣṭ. 2.3.9 *yasmād adhikaṃ yasya ceśvaravacanaṃ tatra saptamī*, an adpositional phrase with a noun in the locative case can modify another noun when excess or dominance is intended.

[3] Compound nouns of this type occur in later texts, e.g. Atharva-Veda (Śaunaka) 10.5.5c *apsu-yogáiḥ* 'with water-junctions' (Whitney 1905:580). See Wackernagel 1905:46.

[4] In this connection, supplying a copula verb in a nominal sentence is also mentioned by Kātyāyana, in

locative noun occurs more often, especially in non-finite subordinate clauses (Speijer 1886:105, Speyer 1896:22), e.g. Mahābhārata (Poona edition) 3.28.23c ***śarātisarge*** *śīghratvāt* "because of (Arjuna's) quickness **at discharging** arrows."

4 Results

In the previous section, we reviewed the usages of the locative taught in Pāṇini's grammar and confirmed that Pāṇini accepted only limited cases of attributive locative, in which adnominal use of the locative of locus (*ādhāra*) is not included. Based on those usages and adding a few more, we will group the suspected cases of attributive locative in the Ṛgveda in this section. We tried to narrow our search, but since there are numerous cases of the locative, many of which cannot be extracted by a simple searching algorithm, the examples cited here represent a very limited portion of passages with the locative in the Ṛgveda.

4.1 A noun in the locative and another noun, connected by a verb

When there are two semantically connected nouns side by side and one of them is in the locative, it is often the case that they are connected by a verb. For example, RV 1.52.8c *áyachathā* ***bāhvór*** *vájram āyasám* "da hieltest du die eherne Keule **in den Armen**" and RV 4.22.3c *dádhāno vájram* ***bāhvór*** *uśánta[m* "wenn er die begierige Keule **in den Armen** hält" contain *vájram* acc.sg. of *vájra-* m. 'cudgel' and *bāhvóḥ* loc.du. of *bāhú-* m. 'arm' side by side, but since these nouns are the direct object and the locus of the verb *áyachathāḥ* ipf.2sg.mid. of *yam* 'to hold' and the participle *dádhānaḥ* pres.ppl.mid. of *dhā* 'to put', respectively, they are not connected directly.

Similarly, *vánesu* loc.pl. of *vána-* n. 'wood' and *mṛgó mahiṣáḥ* nom.sg.m. 'a wild buffalo' in RV 9.92.6d *sī́dan mṛgó ná mahiṣó* ***vánesu*** "[ist der sich läuternde Soma in die Krüge gegangen,] wie ein Büffeltier **in den Wäldern**, in den (Holz)gefäßen sich niederlassend" "taking his seat like a wild buffalo **in the woods [/wooden cups]**" are connected not directly but by means of *sī́dan* pres.ppl.act. of *sad* 'to sit'. In RV 9.62.8c *sī́dan yónā* ***vánesv ā́*** "[Rinne du ... und] setze dich auf deinen Platz **in den Holz(gefäßen)**!" "[Rush ...] sitting on your womb, **in the wooden (vessels),**" *yónā* loc.sg. of *yóni-* m. 'lap, abode' and *vánesu* loc.pl. 'in the woods' are both loci of the participle *sī́dan* 'sitting' even though they might refer to an identical place, meaning 'in a lap, i.e. in wooden vessels'. In RV 9.86.6d *sáttā ní yónā* ***kaláśeṣu*** *sīdati* "setzt sich der gern Sitzende an seinen Platz, **in die Krüge**" "seated in his womb, he sits down **in the tubs**" as well, *yónā* loc.sg. of *yóni-* m. 'abode' and *kaláśeṣu* loc.pl. of *kaláśa-* m. '[wooden] bucket' are connected not to each other but to the verb *sad*: *sī́dati* 'to sit'.

Vārttika 11 to Aṣṭ. 2.3.1, *a]stir bhavantīparaḥ prathamapuruṣo 'prayujyamāno 'py asti* (I.443.5-6 in Kielhorn's edition), where he explains that the verb *as* 'be' inflected in the present third person is to be supplied in a nominal equational sentence like *vṛkṣaḥ plakṣaḥ* 'Plakṣa is a tree' even if it is not actually used.

While there is unequivocal *kāraka* relationship in these cases, it is sometimes difficult to judge whether the locative noun is a modifier of an NP or an adjunct of the verb. *vājín-* m.n. and *vājínī-* f. 'victorious' in the following examples might be modified by the preceding *vā́jeṣu*, loc.pl. of *vā́ja-* m. 'contest, prize', but it is also possible that *vā́jeṣu* is an adjunct of the verbs *av*ʲ: *ávati* 'to support' or *vājáya-* 'to compete': RV 1.4.8c *prā́vo* ***vā́jeṣu*** *vājínam* "Du halfst dem Sieggewinner **in den Kämpfen um den Siegerpreis**" "You helped the prizewinner **to the prizes**"; RV 1.4.9ab *táṃ tvā* ***vā́jeṣu*** *vājínaṃ vājáyāmaḥ śatakrato* "Wir treiben dich, den Sieggewinner **in den Siegeskämpfen**, zum Siegen, du Ratreicher" "We incite you, the prizewinner, **to the prizes**, o you of a hundred resolves, to win the stakes, Indra"; RV 6.61.6b *ávā* ***vā́jeṣu*** *vājini* "Dann schenke [du Göttin Sarasvatī], du Siegerin **in den Wettkämpfen**, uns deine Gunst" "Aid (him), goddess Sarasvatī, **at the prize (contests)**, you prizewinner."

In the following two examples, *vidáthe* loc.sg. or *vidátheṣu* loc.pl. of *vidátha-* n. 'distribution → assembly' can be interpreted as modifying *suvī́rāḥ* nom.pl.m. of *suvī́ra-* a. 'rich in heroes' or *vedhásaḥ* nom.pl. of *vedhás-* a. 'mighty', but they might simply be loci of the actions of the verbs *vad* 'to say' and *var*⁽ⁱ⁾ 'to elect', respectively: RV 2.1.16d and Book 2 passim *bṛhád vadema* ***vidáthe*** *suvī́rāḥ* "Wir möchten das große Wort führen als Meister **in der weisen Rede** [?]" "May we speak loftily **at the ritual distribution**, in possession of good heroes"; RV 10.91.9ab *tvā́m íd átra vṛṇate tvāyávo / hótāram agne* ***vidátheṣu*** *vedhásaḥ* "Nur dich erwählen da deine Anhänger zum Hotṛ, o Agni, die Meister **in den Weisheitsreden**" "Just you do they choose here—the ritual adepts devoted to you—as Hotar **at the rites**, o Agni."

4.2 A noun in the locative connected with a deverbal noun or adjective

We saw in §4.1 above that when a noun in the locative and another noun appear side by side, they might be connected not with each other but indirectly with a verb as its adjunct or argument. The same applies to passages where a noun in the locative is governed by a noun or an adjective of verbal origin, such as *sāsahí-* from *sah* 'to win'. Examples include the following:

> *pṛ́tanāsu* loc.pl. of *pṛ́tanā-* f. 'battle' plus a derivative of *sah*: *sáhate* 'to win', *sāsahí-* or *sā́ḷhar-*: RV 1.102.9b *tvám babhūtha* ***pṛ́tanāsu*** *sāsahíḥ* "du warst der Sieger **in den Kämpfen**"; RV 2.23.11b *níṣṭaptā śátrum* ***pṛ́tanāsu*** *sāsahíḥ* "...ein Ausbrenner des Feindes, **in den Schlachten** siegreich"; RV 7.56.23c *marúdbhir ugráḥ* ***pṛ́tanāsu*** *sā́ḷhā* "Durch die Marut bleibt der Gewaltige Sieger **in den Schlachten**"; RV 8.61.12a *ugráṃ yuyujma* ***pṛ́tanāsu*** *sāsahím* "Wir haben den Gewaltigen, **in den Kämpfen** Siegreichen, in Anspruch genommen"; RV 8.70.4a *áṣāḷham ugrám* ***pṛ́tanāsu*** *sāsahi[m* "Den Unbezwungenen, Gewaltigen, **in den Schlachten** Bezwingenden."

> ***samátsu*** loc.pl. of *samád-* f. 'fight' plus *sāsahí-* a. or *saṃvṛ́j-* a. 'winning': RV 2.12.3d *saṃvṛ́k* ***samátsu*** *sá janāsa índraḥ* "der Spielgewinner **in den Kämpfen** – der, ihr Leute, ist Indra"; RV 9.4.8b ***samátsu*** *sāsahíḥ* "**in den Kämpfen** siegreich."
>
> ***vániṣu*** loc.pl. of *vána-* 'wood' plus *uśádhah-* a. 'burning avidly' (meaning unclear): RV 3.34.3c *áhan vyàṃsam uśádhag* ***vánes[u*** "Er [=Indra] erschlug den Vyaṃsa **in den Hölzern** gierig brennend."

Many deverbal nouns govern cases different from the corresponding verbs to express *kāraka* relationship; for example, verbal adjectives in *-tá-* take an instrumental (or, in certain contexts, genitive) noun to denote the agent, as Pāṇini mentions in Aṣṭ. 2.3.18 *kartṛ-karaṇayos tṛtīyā*. However, there are also deverbal nouns which behave as if they were finite verbs in case government. For example, deverbal nouns such as *jagmi-*, derived from the weak stem of the reduplicated stem of *gam* 'go' with the suffix *KiN*, do not mark their objects with the genitive case according to Aṣṭ. 3.2.171, a rule to which Kātyāyana ascribes *sāsahí-*, too. Since the deverbal noun governs the locative noun as its *kāraka*, these are not to be regarded as cases of the attributive locative.

4.3 Noun or adjective governing a locative noun

Not only verbs but also some nouns and adjectives govern specific cases. A well-known example is *námas-* n. 'obeisance', which takes a dative noun for its recipient, as Pāṇini teaches in Aṣṭ. 2.3.16 *namaḥ-svasti-svāhā-svadhālaṃ-vaṣaḍ-yogāc ca*. There are such words for the locative, too (Delbrück 1888:120, Speyer 1896:22, Hettrich 2007: CaIII-34). The noun *ā́bhaga-* m. 'participant' regularly takes a locative noun as in the following examples: RV 1.136.4bc *sómo bhūtv* ***avapā́neṣv*** *ā́bhago / devó* ***devéṣv*** *ā́bhagaḥ* "[Dieser] Soma ... der Genosse **bei den Gelagen**,[5] der Gott der Genosse **der Götter** ist" "Let the one here, this soma, ... the one who gives shares in the drinking places—the god who gives shares to the gods," and RV 8.53.6b *kṛdhí* ***prajā́sv*** *ā́bhagam* "Mach [den rechtmäßigen Herrn ...] **der Kinder** teilhaft!" Haudry (1977:84) notes that the adjective *nyòkas-* 'comfortable' takes a locative noun as in RV 5.44.15d *távāhám asmi* ***sakhyé*** *nyòkāḥ* "**In deiner Freundschaft** fühle ich mich heimisch" "**dans ton amité**, (je me ses comme) chez moi" (Renou).

śū́ra- m., a. 'hero, heroic', like *sāsahí-* etc. in §4.2 above, is connected with *yutsú*, loc.pl. of *yúdh-* f. 'war' in the following example: RV 9.89.3c *śū́ro* ***yutsú*** *prathamáḥ pṛcchate gā́[ḥ* "Als der vorderste Held **in den Kämpfen** erkundigt er sich nach den Kühen" (this might fall under §4.5 below). So is *rā́jan-* with *apsú*, loc.pl. of *áp-* f. 'water', in the following example: RV 10.45.5cd *vásuḥ sūnúḥ sáhaso* ***apsú*** *rā́jā / ví bhāty* ... "der gute Sohn der Kraft, der König **in den Gewässern**, erstrahlt er ..."

[5] Willman-Grabowska (1928:65) points out the similarity of such locatives to the partitive genitive.

4.4 With a copula or existential verb: "A is in B", "something is or becomes A in B"

In a sentence with an existential verb, a noun in the locative may occur with another noun. In such sentences, the locative noun can be either an adjunct of the verb or a modifier of another noun:

RV 2.1.2d *brahmā́ cā́si gr̥hápatiś ca no* ***dáme*** "Du bist sowohl der Brahman als auch der Hausherr **in** unserem **Hause**"; RV 2.10.3b *bhúvad agníḥ* ***purupéśāsu*** *gárbhaḥ* "Agni ward Leibesfrucht **in den vielfarbigen** (Hölzern)"; RV 5.9.7d, 5.10.7d, 5.16.5d, 5.17.5d *utáidhi pr̥tsú no vr̥dhé* "und sei du uns zur Stärkung **in den Kämpfen**!" "And let him be present to strengthen us **in battles**"; RV 6.48.2c *bhúvad vā́jeṣv avitā́* "Er sei der Helfer **in den Preiskämpfen**"

When an equational sentence has a locative noun as its predicate, it is also indistinguishable from an NP with the attributive locative, especially when a copula verb *as: ásti* is not present.

RV 5.54.11 ***áṃseṣu*** *va r̥ṣṭáyaḥ* ***patsú*** *khādáyo /* ***vákṣassu*** *rukmā́ maruto* ***ráthe*** *śúbhaḥ / agníbhrājaso vidyúto* ***gábhastyoḥ*** *śíprāḥ* ***śīrṣásu*** *vítatā hiraṇyáyīḥ* "**Auf** euren **Schultern** sind die Speere, **an den Füßen** die Spangen, **an der Brust** die Goldmünzen, ihr Marut, **am Wagen** die Prunkstücke, feuerglänzende Blitze **in euren Händen**, **an den Häuptern** dehnen sich die goldenen Zahnreihen (?) aus"; RV 1.51.3b *-u]tádraye* ***śatádureṣu*** *gātuvít* "dem Atri warst du Pfadfinder **in dem hunderttorigen** (Hause)"; RV 1.52.2a *sá párvato ná* ***dharúṇeṣv*** *ácyutaḥ* "Unerschütterlich wie ein Berg **in seinen Grundfesten** ist [Indra]"; RV 1.61.9c *svarā́ḷ índro* ***dáma*** *ā́ viśvágūrtaḥ* "Indra ist der Selbstherrscher **in seinem Hause**, von allen gepriesen" "Sovereign king, Indra, sung by all in the house"; RV 1.178.3a *jétā nŕ̥bhir índraḥ* ***pr̥tsú*** *śū́raḥ* "Indra, der Held, ist mit den Männern Sieger **in den Schlachten**"; RV 4.21.6d *yó no mahā́n* ***saṃváraṇeṣu*** *váhniḥ* "der unser großer Wagenführer (des Opfers) **in den Gehegen** ist"; RV 8.71.11cd *dvitā́ yó bhū́d amŕ̥to* ***mártyeṣv*** *ā́ / hótā mandrátamo* ***viśí*** "[Zu Agni, ...] der abermals, der Unsterbliche **bei den Sterblichen, in der Niederlassung** der wohlredendste Opferpriester ward."

4.5 Pāṇini's 'locative of singling out' (*nirdhāraṇa*)

As cited in §3, Pāṇini mentions several non-*kāraka* usages of the locative in Aṣṭ. 2.3. We do not have actual examples of *svāmin-* m. 'master', *īśvara-* m. 'lord', *kuśala-* a. 'skillful' etc., words which Pāṇini lists as occurring with a locative noun, from the R̥gveda. However, we do have examples of Aṣṭ. 2.3.41 *yataś ca nirdhāraṇam*, which provides that a noun takes the locative along with the genitive when it denotes things

from among which something is singled out. Hettrich (2007:Ba-6, CaIII-33f.) gives this under the usages of the locative case.

RV 1.102.9ab *tvā́m* ***devéṣu*** *prathamáṃ havāmahe* "Dich rufen wir zuerst **unter den Götterm** an"; RV 1.180.8c *agástyo narā́ṃ* ***nŕ̥ṣu*** *práśastaḥ* "Agastya, der **unter den Männern** der gepriesene der Männer ist"; RV 6.9.5b *máno jáviṣṭham* ***patáyatsv*** *antáḥ* "der Gedanke, der **unter den fliegenden** (Wesen) das schnellste ist"; RV 8.71.11cd *dvitā́ yó bhū́d amŕ̥to* ***mártyeṣv*** *ā́ / hótā mandrátamo viśí* "[Zu Agni, ...] der abermals, der Unsterbliche bei den Sterblichen, in der Niederlassung der wohlredendste Opferpriester ward" (given in §4.5 above). *viśí* might be a case of the locative of singling out, if *viś-* collectively refers to 'people'.

4.6 Examples that look like genuine attributive locatives: 'A in B'

RV 5.61.2c ***pr̥ṣṭhé*** *sádo* ***nasór*** *yámaḥ* "[(Wo ist)] der Sattel **auf dem Rücken**, der Zaum **in den Nüstern** (der Rosse)?" "(Where is) the seat **on their back**, the bridle **at their nostrils**?"

In this stanza, *nasór* in *nasór yámaḥ* must be a locative because *pr̥ṣṭhé* in the parallel phrase *pr̥ṣṭhé sádaḥ* can only be a locative. And since *pr̥ṣṭhé sádaḥ* and *nasór yámaḥ* are subjects of the verbless existential sentence of which the predicate is *kvà* 'where' in pāda a, attributive relationship is clear.

RV 2.11.6c *stávā vájram* ***bāhvór*** *uśántam* "Ich will die willige Keule **in** [deinen] **Armen preisen**" (cited above in §2)

Since it is unlikely that arms are the locus of praising, and since taking *bāhvór* as a genitive ('cudgel of the arms') does not make much sense, we should take *vájram bāhvór* as 'cudgel in the arms'.

5 Discussion

In §4, we tried to find genuine and unambiguous cases of the attributive locative, i.e. a noun in the locative forming an NP with another noun. While the singling-out relation ('A among B') is mentioned in native grammar, the containing relation ('A in/on/at B') is not taught by Pāṇini, and we are particularly interested in the existence of this latter type.

In the suspected examples of attributive locative, the following points are worth noting:

a) A finite verb, a participle, or a deverbal noun or adjective stands between the noun in the locative and another noun, and the connection of the two nouns is indirect and loose. Even when the two nouns look directly connected, they may be taken

over from preceding context where they are connected through a verb, e.g. *bāhvóḥ* in RV 2.11.6c *vájram bāhvóḥ* looks modifying *vájram* directly, but in fact these nouns occur in RV 2.11.4b connected through the participle *dádhānāḥ*.

b) A copula or an existential sentence is considered to underly the combination of the two nouns. In such cases, the two nouns form a nexus rather than one NP. In RV 5.61.2, *pṛṣṭhé sádaḥ* 'the saddle (which is) **on the back**' and *nasór yámaḥ* 'the bridles (which are) on the nostrils' can be taken as forming nexuses.

Although we have not checked enough examples of the locative in the Ṛgveda to draw a generalization yet, so far it is difficult to find an unequivocal example of the attributive locative of locus which is not taken over from preceding context. In its earliest stage, Sanskrit may not have had an adnominal usage of the locative of locus, and most apparent cases of adnominal usage can be explained as an extension of the *kāraka* relationship of a verb or a verbal derivative, present or omitted.

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Zur „Vokalisierung" der Laryngale im Indoiranischen*

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1 Einleitung

Das Phänomen der „Laryngalvokalisierung" gehört zu den auffälligsten Besonderheiten der indogermanischen historischen Phonologie und hat in den letzten Jahrzehnten viel Aufmerksamkeit gefunden. Für viele Sprachzweige gibt es detaillierte Untersuchungen zur Lautentwicklung der urindogermanischen „Laryngale", und doch ist vieles noch unklar. Bemerkenswerterweise gibt es gerade zu zwei der in diesem Zusammenhang wichtigsten Unterfamilien jedoch keine ausführlicheren Spezialuntersuchungen, nämlich zum Anatolischen und Indoiranischen. Beide Sprachzweige spielen neben dem Griechischen eine Hauptrolle sowohl für die grundsätzlich-theoretische als auch für die praktische Rekonstruktion der Laryngale, und dennoch gibt es zu beiden keine größeren Spezialmonographien über dieses Thema wie die von Beekes (1969) und Peters (1980) zum Griechischen, Schrijver (1991) zum Lateinischen oder Zair (2012) zum Keltischen. Beim Anatolischen wird das Thema allerdings ausführlich nicht nur in Melcherts (1994) allgemeiner Darstellung der historischen Phonologie behandelt, sondern auch in Kloekhorsts (2008) Wörterbuch. Für das Indoiranische gibt es hingegen noch kein ausführliches neueres Handbuch,[1] und auch die kurze Darstellung von Manfred Mayrhofer (2005) bietet zwar eine sehr nützliche Übersicht und Zusammenfassung, ersetzt eine genauere Untersuchung jedoch nicht wirklich. Die umfangreichste Diskussion bietet in jüngster Zeit Lipp (2009:II 351–464), der speziell auf die Vokalisierungsregeln eingeht, weil sie für die Chronologie der Palatalisierung der Velare wichtig sind. Aus seiner Diskussion mit ausführlichen bibliographischen Angaben wird ersichtlich, dass nicht nur der Prozess und Zeitpunkt der „Vokalisierung" umstritten sind, sondern oft auch die Deutung der konkreten Ergebnisse. Sowohl beim Iranischen als auch beim Indoarischen herrscht keine Einigkeit

* Für Hinweise und Diskussion hier besprochener Probleme danke ich Reiner Lipp und Sergio Neri. Der Artikel steht im Zusammenhang mit der indoiranischen Grammatik, die der Verfasser demnächst vorlegen wird (Kümmel in Arbeit).

[1] Gotō (2013) behandelt nur die Morphologie des Indoarischen.

über die ursprüngliche Distribution der verschiedenen Reflexe und deren Entstehung, nämlich Null (keine Vokalisierung), *i* und *ī*; im Iranischen ist zwar zweifellos ersteres am häufigsten, im Indoarischen dagegen *i*, doch zu Details gibt es teilweise völlig konträre Auffassungen.

2 Indoarisch *ī*

Einen wesentlichen Beitrag dazu hat nun schon vor Jahren die Jubilarin geleistet, die sich mit dem synchron selteneren, sozusagen „abweichenden" altindoarischen Reflex *ī* beschäftigt hat (Jamison 1988). Die Bedeutung dieses Beitrags und seine Konsequenzen für die indoiranische Lautgeschichte ist meines Erachtens nicht hinreichend erkannt worden. Stephanie Jamison zeigt in ihrem Aufsatz, dass der oberflächliche Eindruck eines gewissen Chaos bei der Verteilung von *i* und *ī* trügerisch ist und man den Langvokal nur in einer Position als lautgesetzlichen Reflex von vokalisiertem Laryngal anzunehmen hat, nämlich vor Konsonanten in einer (potentiellen) Endsilbe, also bei ursprünglichem **CHC#*. Überall sonst wurde nur zu *i* vokalisiert oder gar nicht. Fälle von *ī* für einfaches **H* außerhalb dieser Position seien durch analogische Generalisierung zu erklären, vor allem bei den Formen der Wurzel *grabh-/grah-* (letztlich alle nach dem Wurzelaorist *grabhīṣ*, *grabhīt*). Bei einer typischen Umgebung von *ī* ist diese Erklärung aber zumindest problematisch, nämlich bei *ī* im schwachen Stamm der Nasalpräsentien der Klasse auf *-nā-* ~ *-nī-* und reduplizierter Präsentien wie *mimā-* ~ *mimī-* ‚messen'. In deren Paradigma kommen praktisch keine Endsilben mit **-HC#* vor, und so kann man hier nur Übertragung aus dem zugehörigen Aorist vermuten (so nach Jamison), doch ist das wohl weniger wahrscheinlich (s. dagegen Praust 2004).

Da im Vedischen *i* in Endsilben gewöhnlich erhalten bleibt, kann man *ī* nicht einfach aus älterem **i* herleiten.[2] Die Vertretung als *ī* hat Praust (2004) genauer besprochen und dabei vorgeschlagen, den Langvokal durch Ersatzdehnung eines vor dem Laryngal entstandenen Sekundärvokals zu erklären. Die Position des Sprossvokals vor dem Laryngal sei in Endsilben regulär, bei den Nasalpräsentien in Binnensilben aber analogisch zu erklären: **-naH-* : **-nHi-* wurde zu **-naH-* : **-niH-* umgestaltet (ebenso **mimaH-* : **mimHi-* → **mimaH-* : *mimiH-* usw.).

Wenn man das ernst nimmt, folgt daraus, dass in genau diesem Kontext vor dem Schwund des Laryngals eine Lautfolge **CiHC#* vorgelegen haben muss. Die Frage ist nun, wie diese Folge zustande kam und wann der Laryngalschwund stattfand. Gewöhnlich wird angenommen, dass postvokalische silbenauslautende Laryngale schon uriir. schwanden. Das würde dann bedeuten, dass auch die Vokalepenthese vor dem Laryngal schon uriir. gewesen sein müsste. Folglich wäre auch im Iranischen in dieser

[2] Lipp (2009:II 393f. Anm. 97) deutet eine Erklärung an, nach der in geschlossener Silbe ein geschlossenes überkurzes *i* artikuliert worden sei, das später wegen gleicher Qualität mit dem Langvokal *ī* zusammengefallen war. Für einen derartigen Vorgang fehlt im Indoarischen aber jede Parallele.

Position Epenthese und Ersatzdehnung zu erwarten. Tatsächlich wird von vielen (s. Lipp 2009:II 392, 399–400, 406–7 mit Literatur) für virtuelle Endsilben eine schon uriir. Epenthese angenommen; darauf kommen wir später noch zurück.

2.1 Laryngalmetathese

Die Entstehung von _*°CiHT#_ ist nun aber problematisch deswegen, weil man bei einer Epenthese eher _*°CHiT#_ erwarten würde als eine Form mit Konsonantengruppe in der Koda. Es ist aber leicht möglich, tatsächlich letztere Entwicklung als ersten Schritt anzunehmen. Das Resultat _*°CiHT#_ kann nämlich durch die bekannte Laryngalmetathese erklärt werden (vgl. dazu Mayrhofer 1986:174–5), die offenbar bei _*Hi_ (und parallel _*Hu_) zwischen Konsonanten stattfand: vgl. z. B. _**gHi-tá-_ ‚gesungen' > _*giHtá-_ > ved. _gītá-_;[3] bemerkenswerterweise aber auch bei _*CiHuC_ > _*CyuHC_, vgl. _*siHu-tá-_ > _*syuH.tá-_ > _*syū.tá-_ > ved. _syūtá-_ ‚genäht'. Diese Laryngalmetathese kann nicht als Verbesserung der Silbenstruktur motiviert werden, weil dann unverständlich bliebe, warum sie nicht auch bei _*CHaC_ stattfand. Dagegen kann man sie als Sonderentwicklung vor hohen Vokalen verstehen, wenn man damit rechnet, dass diese zunächst mit dem Laryngal verschmolzen und danach davor eine neue Epenthese stattfand: _*CHiC_ > _*CHʸiC_ > _*CHʸC_ > _*CiHʸC_ > _*CīC_ bzw. _**C(i)HuC_ > _*C(i)HʷuC_ > _*C(i)HʷC_ > _*C(y)uHʷC_ > _*C(y)ūC_. Wenn der entsprechende Laryngal ein [h] oder dorsaler Frikativ war, ist eine solche Entwicklung phonetisch sehr wahrscheinlich, da solche Laute sehr leicht von _i_- und _u_-Vokalen bzw. Approximanten beeinflusst werden (s. Kümmel 2007:161, 272; vgl. die spätere Entwicklung von _*hy_, _*hw_ zu avest. _x́/xᵛ_ etc.), und sie könnten auch besonders leicht den folgenden Vokal stimmlos machen und damit dessen Synkope erleichtern. Wenn also durch Epenthese ein _*CHiT#_ entstanden war, lagen die Bedingungen für die Laryngalmetathese vor, und es konnte daraus _*CiHT#_ entstehen.

3 Zur Chronologie der Epenthese

Die Voraussetzung ist aber natürlich, dass es in virtuellen Endsilben Epenthese eines gewöhnlichen Kurzvokals _*i_ gab, und wegen der Datierung all dieser Prozesse vor dem Laryngalschwund wäre es vorteilhaft, sie als bereits (vor)uriir. anzusetzen. Nun nimmt allerdings Tichy (1985) an, dass im Iranischen und folglich im Urindoiranischen ein echtes _*i_ nur im absoluten Auslaut entstand, während überall sonst gewöhnlich ein überkurzer Vokal resultierte, der iranisch wieder schwand. Dieser Ansatz macht zwar die Erklärung von iranischen _iš_-Stämmen aus Stämmen auf _*°CH-s_- unmöglich, die für Fälle wie av. _təuuiš-_ ‚Gewalt', _staⁱriš-_ ‚Lager' naheliegend und darum weit verbreitet ist (vgl. die Literatur bei Litscher 2007; Lipp 2009:II 406f.). Das

[3] Weitere Beispiele sind _**dʰhi-tá-_ ‚gesaugt' > _*dʰih.tá-_ > _*dʰī.tá-_ > ved. _dhītá-_; _**pHi-tá-_ ‚getrunken' > _*piH.tá-_ > _*pī.tá-_ > ved. _pītá-_; unsicher ved. 3. Sg. Aorist _áśita_ ‚hat geschärft', da hier auch ein _*áśita_ < _*áćHta_ vom zugehörigen Präsens _śiśī-_ beeinflusst sein könnte, vgl. Verbaladjektiv _śitá-_.

kann aber nicht als entscheidendes Argument gelten, weil es prinzipiell möglich ist, alle diese Stämme als echte _*iš_-Stämme zu deuten (s. Litscher 2007), die ihr _*i_ von einem _i_-Stamm bekommen haben.

Das Hauptargument gegen schon urindoiranische Epenthese in Endsilben sind nun gerade die avestischen Entsprechungen von vedischen Verbformen wie _(á)grabhīt_ etc., denn im Avestischen gibt es hier keinen Unterschied von seṭ- und aniṭ-Wurzeln, genauso wenig wie bei Binnensilben: vgl. 2. Sg. _mraoš_, 3. Sg. _mraoṯ_, _mōist_, _auu-ąn_ zu uriir. _*mrawH-_, _*mayth-_, _*hanH-_ im Gegensatz zu ved. _ábravīṣ_, _ábravīt_; _ā́nīt_. Allerdings sind nur genau diese vier relevanten Formen belegt, und es kann kaum ausgeschlossen werden, dass sie analogisch entstanden sind: Weil anders als im Indoarischen der Vokal nur in Endsilben aufgetreten wäre, waren diese wenigen Fomen synchron stark aberrant und könnten nach dem Vorbild der aniṭ-Wurzeln ersetzt worden sein, z.B. _*mraw-ī-t_ → _* mraw-t_ ‚sprach' nach _*sraw-t_ ‚hörte'.[4] Zudem hätte im Avestischen die mögliche Verwechslung mit einem Optativ auf _-ī-t_ stören können, was im Vedischen nicht gilt, weil dieser Bildetyp beseitigt wurde (s. Harðarson 1993:116–7). Als sichere Gegenbeispiele gegen bereits uriir. Epenthese eines Vollvokals _*i_ in virtuellen Endsilben können diese avestischen Verbalformen also nicht gelten. Einfacher zu erklären wären sie aber, wenn man (wie Tichy) mit einem überkurzen Vokal _*ь/ĭ/_$_i$ rechnen könnte, der erst indoarisch mit _*i_ zusammenfiel, iranisch aber wieder schwand.[5] Dann müsste man allerdings, um die Länge von _ī_ zu erklären, den Laryngalschwund und die Ersatzdehnung so spät ansetzen, dass sie erst nach dieser indoarischen Entwicklung geschahen.

3.1 Zur Epenthese in Binnensilben

Die Rekonstruktion von überkurzem _*ь_ stützt sich nun primär auf eine entsprechende Entwicklung in Binnensilben, und diese ist nicht unumstritten. Werba (2005; ähnlich schon Pinault 1982:265; Kobayashi 2004:136–9) argumentiert dafür, dass die Vokalepenthese in solchen Fällen im Iranischen nie stattgefunden hatte, was zweifellos ökonomischer wäre.[6] Tichy (1985) und Lipp (2009:II 351–2, 374–98) haben zwar versucht, mithilfe der palatalisierenden Wirkung des Sekundärvokals eine Datierung in die Zeit der uriir. Velarpalatalisierung zu erweisen: Da ved. _duhitár-_ (und auch der nuristanische Reflex dieses Wortes) Palatalisierung von _*gʰ_ zeigt, wäre es ja am ökonomischsten, mit einem schon uriir. palatalen Vokal zu rechnen. Das ist jedoch fraglich: Werba (2005) rechnet mit einer sekundären Palatalisierung, was chronologisch (pace Lipp) möglich scheint. Zu beachten ist dabei, dass ved. _duhitár-_ ja tatsächlich der

[4] Vgl. Schindler 1975:265f.; Ravnæs 1981:256; Lipp 2009:II 407. Leider ist unklar, ob in P. 22 _θrauuiṭ_ der Injunktiv einer seṭ-Wurzel vorliegen könnte, bei der diese Umgestaltung nicht geschah.

[5] So Tichy 1985:239f.; Mayrhofer 2005; Lipp 2009:II 362.

[6] Gegen Kuiper (1976) und Tremblay (2003:123f. Anm. 34; 153 Anm. 182; 2005a:681f.; 2005b:9) gibt es wohl keine Fälle von iranischer „Vokalisierung" in Binnensilben, s. Lipp 2009:460–4.

einzige Beleg für Palatalreflex vor einem sekundären *i* ist.[7] Für *h* anstelle von *gh* gibt es hier eine andere mögliche Erklärung: Bekanntlich konnte im Vedischen nicht nur die palatale Media aspirata **jh* (bzw. **ž́h*) zu *h* werden, sondern zumindest teilweise auch *bh* und vor allem *dh*. Für *gh* nennen die Handbücher zwar kaum Belege, aber es gibt keinen Grund, es prinzipiell auszuschließen.[8] Nun ist *h* für erwartetes *dh* gerade neben *i* besonders häufig.[9] Wenn das beim Koronal *d^{h} so war, wäre es beim Velar *g^{h} kaum weniger wahrscheinlich, und nichts spricht dagegen, dass sich urindoarisch **dug^{h}itár-* zu *duhitár-* entwickelt haben kann, ohne dass man deswegen mit einer vorindoarischen Palatalisierung rechnen müsste. Brauchbare Gegenbeispiele existieren nicht, da man erhaltenes *gh* vor *ĭ̄* im Rigveda wohl nur in *drā́ghīyas-* ‚länger', *drā́ghiṣṭha-* ‚längst' findet, deren unpalatalisiertes *gh* ohnehin analogisch vom Positiv *dīrghá-* ‚lang' bezogen sein muss. Eine alte Palatalisierung vor laryngalbedingtem *i* kann also im Indoarischen nicht nachgewiesen werden. Zwar zeigt Prasun *lüšt* ‚Tochter' offenbar, dass im Nuristani eine Palatalisierung geschehen ist, doch kann man wohl nicht ausschließen, dass sie sekundär war – unabhängig davon, ob man Lipp (2009) darin folgt, dass hier eine „iranische" Entwicklung mit Schwund des überkurzen Vokals vorlag oder ob man mit Synkope von **i* rechnet. Aus dem Wort für ‚Tochter' lässt sich also kein relativ-chronologisches Argument für schon urindoiranische Epenthese im Inlaut gewinnen.

3.2 Weitere Fälle von Endsilben

Im Unterschied zu Binnensilben gibt es für Endsilben jedoch plausible Kandidaten für „Vokalisierung" schon im Urindoiranischen, bei denen auch im Iranischen *i* erscheint: Die schon erwähnten *iš*-Stämme sind zwar fraglich, aber es gibt noch einen zweiten Typ von Stämmen, in denen *i* als Laryngalreflex auch iranisch vorkommen könnte: Die Rede ist von Stämmen auf *°*CH-* wie den vedischen Wurzelnomina des Typs *-sán(i)-* ~ *sā-* ‚gewinnend', bei denen der Stamm auf *-i-* nur im Nom. Akk. Sg. alt zu sein scheint, was auf einem alten Nom. Sg. auf *°*CH-s* > *°*Ciš* beruhen dürfte.[10] Dieser Typ scheint zwar iranisch nicht sicher belegbar zu sein, doch gehören hierher wohl auch noch einige Wörter mit suffixalem *h_2, die auch iranisch vorkommen: Am bekanntesten ist sicherlich ved. *jáni-*, av. *jaini-/jəni-* ‚Frau' < uriir. **ǵán(h)i-* neben ved. *gnā́-*, av. *gʾnā-/γnā-* < uriir. **gnā́-*, das man durch Paradigmenspaltung aus uriir. **ǵán-h-* ~ **gn-áh-* < idg. **g^{w}én-h_2-* ~ **g^{w}n-(á)h_2-* herleiten kann (vgl. Harðarson 1987:130). Zwar rekonstruiert Harðarson (2014:23f. mit Anm. 4) nun doch wieder einen „echten" *i*-Stamm **g^{w}ḗn-i-* ~ **g^{w}én-i-*, doch ist das keineswegs zwingend; zumal die dehnstufigen Formen (germ. **k^{w}ēni-*, ved. *-jāni-*) offenbar immer ‚Ehefrau' bedeuten und damit eine deutlich engere Semantik als ved. *jáni-* haben (s. dazu Kazzazi 2001:187–94, 246f.), das semantisch besser zu Fortsetzern von **g^{w}en(a)h_2-* wie toch.B *śana*, germ. **k^{w}enōn-* passt. Diese herkömmliche Erklärung von uriir. **ǵan(h)i-* lässt sich auch durch einen weiteren Parallelfall stützen: Es ist nämlich möglich, auch die indogermanisch isolierte *i*-Flexion von ved. *nā́bhi-* ‚Nabel, Nabe' aus älterem **nāb^{h}h-* zu erklären. Diesen Fall will ich an anderer Stelle ausführlicher besprechen und gebe hier also nur die Hauptthese (vgl. auch Kümmel im Druck): Ich rekonstruiere ur-iir. **nā́b^{h}-h-* ~ **nab^{h}-(a)h-*, das durch Paradigmenspaltung einerseits **nā́b^{h}h(i)-* > ved. *nā́bhi-* (und *nā́bh-*?) und gemeiniran. **nāf-* und **nāfi-* (in khot. *nehä*, pamir. Xufi *nēf* etc.),[11] andererseits **nab^{h}ā-* (wohl Lokativ) > av. *nabā-* und **nab^{h}(h)-* (als Grundlage von ved. *nábhya-* ‚Nabe') ergab. Nach Pinault (2012:125f.) setzt auch ved. *védi-* ‚Altar' ein **wazd-h-* fort (aus **we-zd-h_2-* ‚what is set apart', dazu **we-zd-h_2-és-* > **wazdhás-* > **wazd^{h}ás-* > ved. *vedhás-*). All diese Fälle setzen voraus, dass bei Stämmen auf *°*C-H-* schon uriir. ein **i* auftreten konnte, das dann wahrscheinlich im Nom. Sg. auf *°*CHs* > *°*CHiš* entstanden war und von diesem aus in den Akk. Sg. *°*CHim* übertragen wurde.

Störend ist für diese Erklärung die Kürze des *i*, da man ja in Endsilben nach dem oben Gesagten eben gerade *ī* erwarten sollte. Die Kürze kann aber wohl dadurch erklärt werden, dass eben schon früh ein Akkusativ auf *°*Him* entstanden war und damit eine morphologische Zuordnung zu den *i*-Stämmen, für die kurzes *i* charakteristisch war. In der Folge *°*Him#* wäre die Metathesenentwicklung wohl früh blockiert worden, da sie zu einer unerwünschten Koda **Hm#* geführt hätte, in der das Prinzip der vom Silbenkern aus kontinuierlich abnehmenden Sonorität (SSP) verletzt worden wäre (Realisierung des *m* als silbischer Nasal kam zu diesem Zeitpunkt wohl nicht mehr in Frage).

3.3 Gesamtentwicklung in Binnen- und Endsilben

Wenn also Metathese auch bei sekundärem **iH* gilt, erhebt sich natürlich die Frage, warum im vedischen Inlaut gewöhnlich keine Metathese bei ehemaligem **CHC* zu finden ist, warum es also nicht †*duhītár-*, †*mathītá-* usw. heißt, sondern eben *duhitár-*, *mathitá-* etc.[12] Auch hier wäre ja mit altem **dug^{h}hitár-*, **mathitá-* zu rechnen. Die Antwort kann nur in der relativen Chronologie liegen: Der Sekundärvokal war in Endsilben eben schon früher entstanden, noch vor der schon urindoiranischen Metathese, in Binnensilben jedoch erst relativ spät im Indoarischen, so dass sich nach dem bald

[7] Alle übrigen Wortformen mit *i* für Laryngal wie z.B. *tigitá-* ‚spitz' zeigen keine Palatalisierung, weshalb Kuiper (1942:27) das für lautgesetzlich hält, sie könnten aber analogisch erklärt werden (Wackernagel 1896:142; Werba 2005:704 Anm. 28; Lipp 2009:II 353f.).

[8] Ved. *-h-* aus **ǵ^{h}* kann in den Namen *Ráhūgaṇa-* und vielleicht auch *Jahnu-* vorliegen (s. Mayrhofer 2003:75; Remmer 2006:166f. mit Anm. 162), außerdem vielleicht auch in *mastr̥han-* ‚Gehirn', für das wegen iran. **mastərgan-* eine Vorform **mastr̥g^{h}an-* wahrscheinlicher ist als **mastr̥ǵ^{h}an-*; in keinem dieser Fällen kann freilich eine analogische Übertragung ausgeschlossen werden.

[9] Vgl. Lubotsky 1995; Kobayashi 2004:84–91.

[10] Zur Entwicklung vgl. Kuiper 1942:80–2; Debrunner 1954:294–6. Scarlata (1999) hält zwar nur *°*CHm* > *°*Cim* im Akkusativ für alt, doch wäre hier wohl unbedingt *°*CHm̥* → *°CHam* zu erwarten.

[11] Zu *f* < **bh* s. Kümmel im Druck, vgl. besonders jav. *mas-* ‚groß' < **madz-h-* neben *mazā-* < **madz-ah-*.

[12] Fälle mit Länge wie *párīṇas-*, *ga(m)bhīrá-* sind deutlich in der Minderheit und dürften ohnehin nicht lautgesetzlich auf **párHnas-*, **ga(m)b^{h}Hrá-* zurückgehen.

danach anzunehmenden Laryngalschwund einfach *i* ergab. Eine frühere Epenthese in Endsilben ist natürlich leicht zu motivieren, weil dort ja prinzipiell eine komplexere Struktur vorlag. Im Anschluss an Werba (2005) und Byrd (2015) scheint mir das folgende Szenario am wahrscheinlichsten (formuliert in silbenphonologischen Begriffen):

Eine Sequenz *VCHCV wurde uriir. und auch iranisch als *VC.HCV realisiert, und da *HC wie *sC ein möglicher Silbenanlaut war, bestand kein Anlass für Epenthese. Im Indoarischen war jedoch dieser Typ von Silbenanlaut nicht mehr möglich, eine Realisierung als *VCH.CV hätte aber eine unerlaubte Koda ergeben.[13] Als Lösung bleiben nur Tilgung des Frikativs (wie bei dem parallel gelagerten Fall von *kšt > kt) oder Epenthese zu *VC.Hi.CV. Bei auslautendem *VCHT# jedoch lag bereits uriir. eine problematische Struktur vor: *VC.HT# war wohl nicht zulässig, weil keine extrasyllabische Doppelkonsonanz erlaubt war, und *VCH.T# hatte eine unzulässige Koda. Durch eine Epenthese konnte hier auch die morphologische Struktur besser bewahrt werden als bei Tilgung eines Konsonanten, so dass sich als beste Lösung *VC.HiT ergab, woraus nach dem oben beschriebenen Prozess *V.CiHT entstand, mit Ersatzdehnung *V.CīT.

4 Zur Entwicklung in Erstsilben

Wenn nun der epenthetische Vokal durch den Laryngal gedehnt wurde (und nicht etwa ein überkurzer normalkurz wurde), folgt daraus, dass man in allen Fällen von kurzem Sekundärvokal damit rechnen muss, dass dieser nicht vor einem Laryngal gestanden hatte. Das bedeutet, dass man für *i* in Erstsilben wie bei ved. *pitár-* ‚Vater' nicht mit *pihtár- rechnen könnte, sondern nur mit *phitár-; dies jedoch ist nicht möglich, weil es zu ved. †*phitár-*, av. †*fitar-* hätte führen müssen. Es bleiben dann nur zwei Auswege: 1) Der Laryngal wurde in diesem Kontext direkt vokalisiert; dagegen spricht, dass dies anderswo im Indoiranischen wohl eben gerade nicht geschah und dass außerdem im Avestischen ja auch *pt(r)- fortgesetzt wird. Nach Tichy galt die Direktvokalisierung nur im Vokativ wegen der Anfangsbetonung; dann wäre wohl eigentlich ved. *pítar* ~ *phitár- zu erwarten, und man müsste mit Generalisierung von *p-* rechnen. Hier ist jedoch die Plausibilität einer Sonderentwicklung im Vokativ problematisch, da die Akzentverschiebung eine ältere Vokalentstehung bereits voraussetzt. 2) Der Laryngal muss schon vorher geschwunden sein, und der Sekundärvokal in *pit(r)° steht nur zufällig an seiner Stelle, entstand aber in der Anlautgruppe *pt- und/oder *ptr- erst nach dem bereits erfolgten Schwund des Laryngals. Unter welchen Bedingungen in diesem Kontext Epenthese stattfand, wäre noch zu klären:

[13] Zu wahrscheinlichen Beschränkungen der Silbenstruktur im frühen Indoiranischen und Indoarischen vgl. generell Byrd 2015. Für Teile des Iranischen rechne ich allerdings mit einer noch stärkeren Bevorzugung komplexer Onsets gegenüber Kodas, die zu einer Syllabifizierung *V.TC führte, wie das offenbar im Sogdischen der Fall ist. Unter dieser Annahme lässt auch die avestische Metrik viel besser als (ursprünglich) quantitierend verstehen (dazu demnächst mehr an anderer Stelle).

Nach Byrd[14] hatte man ursprünglich *ptár- ~ *pitr-,[15] was grundsätzlich am plausibelsten scheint, wenn es auch impliziert, dass dann im Avestischen die unbequeme Gruppe *f'ðr-* /fθr-/ analogisch entstanden sein müsste. Für diese Verteilung spricht auch das Wort für ‚Vatersbruder', av. *tūiriia-*, chwar. *'fcwr*, pašto *trə*, da es auf *ptr̥wya- zurückweist.

Theoretisch wäre demnach keine „Vokalisierung" zu erwarten, wenn die Gruppe nach Laryngalschwund einen zulässigen Silbenanlaut bildete, also z. B. nicht nur bei *pHtV° > *ptV°, sondern auch bei *sHCV° > *sCV°. Hier könnte man ved. *sitá-* = av. *hita-* < uriir. *sitá- ‚gebunden' als Gegenbeispiel nennen, das ja häufig auf *sh₂tá- zurückgeführt wird. In diesem Fall ist es jedoch wahrscheinlicher, dass eigentlich *s(h)itá- vorliegt, das regulär zur synchronen Vollstufe *s(h)ay- gebildet ist (vgl. Kümmel 2000:549–50; 676). Reguläre Epenthese wäre dagegen bei *d^hhtá- > *d^htá- und *sthtá- > *sttá- zu erwarten, zumindest wenn die morphologische Struktur durchsichtig bleiben sollte, darum also ved. *hitá-*, *sthitá-* und danach analogisch auch *mitá-* zu *mā-*. Das war jedenfalls die Lösung im Indoarischen, während im Iranischen in solchen Fällen die Nullstufe gewöhnlich durch Vollstufe ersetzt wurde, weshalb sich *dāta-, *stāta- ergab. Analogisch müsste man dann auch den Aorist uriir. *ćišá- für *ćhs-á- zu *ćās- < *ćahs- erklären, da eine Anlautgruppe *ćš° möglich gewesen wäre. Es liegt aber auf der Hand, dass *ćš° (> *tš°) die paradigmatische Transparenz stark gestört hätte, weshalb die Wurzelform *ćiš-, die wohl im Kontext *ćhstá- > *ćStá- > *ćištá- regulär entstanden war, auch in den thematischen Aorist eingeführt wurde. Die synchron wirksame Regel, nach der Laryngale in der Nullstufe in Erstsilben uriir. gewöhnlich als *i reflektiert sind, ist damit wahrscheinlich das Ergebnis verschiedener Prozesse und nicht eines einfachen Lautgesetzes *H > *i.

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[14] Byrd 2015:97–105 im Anschluss an Insler 1971:573 Anm. 2; Beekes 1988:86f.; Beekes 1997:20.

[15] Lipp (2009:II 362f.; 389; 399) rechnet umgekehrt mit *pitár- ~ *ptr-, was unter unseren Prämissen nicht möglich ist.

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Tudáti-presents and the _tēzzi_ Principle

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As pointed out by the honoranda in her masterful review, Hill's recent monograph on the Indo-Iranian _tudáti_-presents (often called Aoristpräsentien) and some related matters (2007) "is a useful, careful compendium of data from which other scholars can draw and on which they can build" (Jamison 2012:282). In what follows I will try to heed this call for an additional treatment and to clarify in a succinct manner what may have been the PIE background of these Indo-Iranian formations.

Generally speaking, zero-grade thematic root presents can easily be taken as thematizations of athematic root presents with non-Narten ablaut[1] whenever the root semantics ("verbal character") are not clearly punctual and whenever there exist thematic nasal presents of the Ved. _vindáti_/Lat. _iungō_ type in the relevant branch/language—i.e. thematic nasal presents containing the weak-stem allomorph of a corresponding athematic nasal present. Such nasal presents would always provide a perfect parallel for a thematization of the weak-stem allomorph of an athematic root present.

To give an example, the root *_ĝerh_$_2$- 'become crushed/old; crush, make old' (although telic) evidently had a non-punctual verbal character and formed a (pre-)sigmatic aorist with Narten ablaut *_ĝērh_$_2$_-(s-)_; accordingly, Ved. _járati_ 'make old, cause to reach a certain age'/_jurátam_ 'make decay' can be analyzed as two different kinds of thematization of a PIE non-Narten root present *_ĝérh_$_2$_-ti_/*_ĝr̥h_$_2$_-énti_. Likewise, since the root *_terh_$_2$- 'cross (a large river), pass over, traverse, overcome'[2] was evidently telic and non-punctual as well and formed a (pre-)sigmatic aorist with Narten ablaut *_tērh_$_2$-/*_trēh_$_2$-, Ved. _tárati_ 'cross, traverse, overcome'/_tiráti_ (only attested with a preverb) usually 'promote, draw' (i.e. acting as a true causative of transitive _tárati_)[3] may similarly derive from a non-Narten athematic root present *_térh_$_2$_-ti_/*_tr̥h_$_2$_-énti_ (which had a participle with the zero-grade allomorph of the root *_tr̥h_$_2$_-(o)nt-_, as

[1]Such an approach can already be found in some works of the early 1880s; see e.g. Osthoff 1882:288–9. (At that time, scholars still considered reconstructing a class of _thematic_ present stems showing root ablaut.)

[2]For the semantics of this root, see especially Watkins 1991:140–6, Hill 2007:140–64, 298–9, and most recently Lazzeroni 2014:270–2.

[3]Note asigmatic RV _atārima_ and Latin _trāns_, which must have started out as an aorist participle (as has been convincingly argued by Vine 2008:20–1), and which seem to derive from an asigmatic full-grade form *_treh_$_2$_-(o)nt-_. For the Celtic cognates of Lat. _trāns_ see Schumacher 2012, according to whom (363) Proto-Celtic *_trānts_ was "das lautgesetzliche Resultat von vorurkelt. *_tr̥h_$_2$_n̥ts_."

per Watkins 1991:140).[4, 5] See also Hill 2007:206–14, 290–1, 301 on Vedic *yuváti* (mostly middle forms) 'hold on tight(ly)',[6] and his statements on pages 291 ("Somit setzt ein Teil der altindoiranischen Aor.-Präs. wahrscheinlich *-á*-Derivate zu athematischen Wz.-Präsentien fort: **i̯áu̯-* ~ **i̯u-* ~ **i̯u-á-* > ved. Aor.-Präs. *yuvá-*. Das Ableitungsmuster kann dabei auch älter als erst urindoiranisch sein") and 301. In a similar way, *LIV*^{2} 187 explains Greek *γράφω* 'write', which seems to be a zero-grade thematic root present as well, by setting up an athematic root present with non-Narten root ablaut **gérbʰ-/*gr̥bʰ-*, and applies the same strategy to *γλύφω* 'carve, cut out with a knife' (*LIV*^{2} 190).[7] If it is true that roots with a durative verbal character formed athematic root presents with non-Narten ablaut and that alongside athematic root presents there could exist thematic variants with *full* grade of the root already in Late PIE,[8] one should also reckon with the possibility that athematic root presents with non-Narten ablaut had thematic variants with *zero* grade of the root already in Late PIE as well,[9] especially if this kind of present-stem formation was already found with aoristic roots at an earlier stage of PIE.

However, such a strategy cannot work for those zero-grade thematic root presents that are clearly derived from roots with punctual verbal character and for which athematic root aorist forms with non-Narten root ablaut are attested. This description in fact holds for many of the zero-grade thematic root presents found in the various branches. Therefore, Hollifield (1977:123),[10] Schumacher (2004:37), and Hill (2007:291, 301) deserve credit for keeping distinct zero-grade thematic root presents based on present/imperfect roots, i.e. what may be called *yuváti*-presents, and zero-grade thematic root presents based on aorist roots, which may be called *tudáti*-presents

[4] To be sure, Watkins himself reconstructed the present participle as **tr̥h₂-ént-*.

[5] For this analysis of Vedic *tárati/tiráti*, see already Lehrman 1985:260, 1993, and 1998:228. It is unclear to me whether Lehrman actually wanted all zero-grade thematic root presents of Indo-Iranian to be explained this way, i.e. as thematized variants of athematic root *presents* with non-Narten ablaut (as has/had been done before, see Hill 2007:6–7); see his similar takes on Vedic *r̥ṣáti* and *kr̥ṣáti* in Lehrman 1998:239–241, Vedic *suváti* in Lehrman 1985:261 and 1998:228, and Vedic *sphuráti* in Lehrman 1985:259–60, 1993, and 1998:228.

[6] This is the original meaning of the root as reconstructed by Hill (2007:206): "Das Aor.-Präs. *yuvá-* muss in etwa die Bedeutung 'etwas (Akk.) festhalten' gehabt haben, kommt im Text des RV allerdings praktisch ausschließlich in sekundären spezialisierten Verwendungsweisen vor"; the root is usually glossed as 'bind, unite'.

[7] As far as *γλύφω* and its cognates are concerned, basically the same approach can already be found in Osthoff 1882:288–9.

[8] See *LIV*^{2} 76–7, 661–2; as for the question of thematization, Lehrman 1998:232–52 and Lazzeroni 2010 deserve special attention.

[9] See already Brugmann 1916:115: "Die Formen des präsentischen Typus *ás-ti* ... wurden vielfach, gewiss auch schon in der Zeit der idg. Urgemeinschaft, in themavokalische Flexionsweise übergeführt. Dies geschah aber nicht nur von der starken, sondern auch von der schwachen Stammgestalt aus, und die in letzterer Weise entsprungenen Typusformen bekamen durch diesen Wandel keineswegs sofort perfektive (aoristische) Aktion."

[10] "It is the probability of a double origin of this class of verbs in an Indo-European present stem class and in thematic aorists that I presume can account for the large number of forms with secondary endings in this class of verbs in the Rig Veda."

proper.[11] At least for the latter type, there seems now to be a growing consensus that it existed already in PIE, see Oettinger 1979:314[12] and *apud* Bammesberger 1984:22; Szemerényi 1990:286 ("**glubhō* in *γλύφω* ... neben **gléubhō* in lat. *glūbō* ..., **grbhō* in *γράφω* ... neben **gérbhō* in mhd. *kerben*");[13] Strunk 1994:424 = 2005:1014; *LIV*^{2} 18–9, 715–6;[14] Jasanoff 2003:222–3; Schumacher 2004:37, 772–3; Pooth 2009:393–4; Tremblay 2009:500; Fortson 2010:98; and Beekes 2011:254–5 ("There are also present-tense forms with zero grade in the root: PIE **tu-dé* 'to bump': Skt. *tudáti* ... Often forms with full grade are found along with the above. The forms with zero grade seem to have an aorist meaning").[15] I must admit that I myself poured some fuel onto this fire by pointing out that the Tocharian B Class II subjunctive **wikä/e-* 'avoid' may form an equation with Vedic *vijate* and/or *viśati* (Malzahn 2010:321).

As far as I can see, one cannot raise principled objections against assuming that from aoristic roots—i.e. roots with punctual verbal character that formed root aorists with non-Narten ablaut—zero-grade thematic root presents could be formed just as well as full-grade thematic root presents.[16] Nevertheless, there are some disturbing

[11] The same distinction was apparently also made by Brugmann (1916:114–5) and may have been hinted at already in Osthoff 1882:289–91. No such distinction is explicitly made in *LIV*^{2}, but as has already been noted by Dahl (2005:59 n. 11), only three out of the twenty zero-grade thematic root presents set up for PIE and labeled as "sicher" ("certain") by *LIV*^{2} are not found alongside a root aorist with non-Narten ablaut made from the very same root (viz. the ones set up for **k/ḱers-*, **kreu̯s-*, and 2. **leug/ǵ-*, see *LIV*^{2} 355, 371, and 416, respectively). Still differently, Renou (1925:310) explicitly separated Vedic zero-grade thematic root presents such as *kṣiyáti* that are attested alongside corresponding Vedic athematic root presents such as *kṣéti* from the rest of the Vedic zero-grade thematic root presents that are obviously not, but then treated the latter as a homogeneous class, in which he was followed by Lazzeroni (1978).

[12] Strongly opposed by Lehrman (1985:235, 259–61; 1993; 1998:204, 228).

[13] Remarkably, Szemerényi quoted as examples for what he evidently thought of as an inherited present type two Greek present stems that according to *LIV*^{2} did *not* derive from this type (see above).

[14] Admittedly, I fail to see by which criteria PIE zero-grade thematic root presents are set up and then labeled as "sicher" ("certain") by *LIV*^{2}. On the one hand, a present stem **k/ḱr̥s-é-* is ranked among the "sicher" instances despite the fact that its reconstruction is based on the sole evidence of Lat. *currō* (*LIV*^{2} 355). Furthermore this verb has durative semantics ("run"), so it is rather an athematic root present **Kers-/*Kr̥s-* that seems to suggest itself. On the other hand the root **seu̯h₁-* 'antreiben, in Bewegung halten' is said to have had an athematic root present "**seu̯h₁-/suh₁-*" (*LIV*^{2} 538–9) despite the fact that there is no clear evidence for a full-grade present-stem allomorph **seu̯h₁-* at all; note that *LIV*^{2} itself reports that the relevant present stems of Hittite, Vedic, and Celtic have all been derived from a **suh₁-é/ó-* in some of the earlier literature. If Indic and Iranian do not count as two different branches, only nine out of the twenty examples of PIE zero-grade thematic presents called "sicher" by *LIV*^{2} are claimed by *LIV*^{2} itself to be attested by at least two branches (viz. the ones set up for the roots **gʷerh₃-*, 1. **leug-*, **leu̯H-*, **pei̯s-*, 1. **seh₁(i)-*, **spti̯eu̯H-*, **spʰerH-*, 2. **u̯ei̯k-*, and 1. **u̯ers-*, see *LIV*^{2} s.vv.).

[15] See also already Hollifield 1977:118f. and 122, who was, however, much more hesitant and uncertain ("remains open to a certain amount of doubt"; "However, it might be the case that Leumann and Renou are right in denying that a root thematic present with accent on the thematic vowel existed in Indo-European").

[16] But note the discussion and qualification in Hollifield 1977:41–5: "[I]t is a significant fact that active root aorists, unlike middle ones, appear not to have occurred beside thematic root presents in Proto-Indo-European. In Vedic, one has almost no examples of an athematic root aorist which is only active appearing beside a thematic present" (41); "The only reliable example of a thematic present to an *activum tantum* root aorist is Vedic *bhávati*, Avestan *bauuaiti* 'becomes,' aorist *ábhūt* ... In this case, however, the thematic present is not reliably taken as inherited from Proto-Indo-European. All the other language families that

facts seemingly at variance with such an assumption, coming from both Greek and Indo-Iranian.

First, Greek is not involved in any of the twenty zero-grade thematic root presents reconstructed for PIE and labeled as “sicher” by *LIV*^{2}, with the exception of “*luH-é-”, said to be attested by Gk. λύω ‘unbind, dissolve’ and Lat. *luō* ‘pay, atone for’ (*LIV*^{2} 417).[17] However, for the Greek root λυ- no lautgesetzlich outcomes of full-grade allomorphs *le/ou̯H- are found, so that one may suspect that the root “*leu̯H- ‘abschneiden, lösen’” (‘cut off, dissolve’) had started out as a non-ablauting root *luH- of the *b^{h}uH- kind.[18] Accordingly, Gk. λύω and Lat. *luō*[19] may rather derive from a PIE present *lúH-e/o- than from a PIE present *luH-é/ó-.[20] In addition, it has already been noticed[21] that the evidence provided by the handbooks in support of Ancient Greek *tudáti*-presents proper is rather poor.[22] There are no clear instances of *tudáti*-presents proper in Homeric Greek;[23] and some poetic thematic aorist stems, such as *κιε/ο-* ‘go’, *κλυε/ο-* ‘hear’, and reduplicated *πεφνε/ο-* ‘kill’, seem to turn into present stems before our very eyes, a development that was probably caused by the fact that these verbal stems were no longer part of the poets’ vernaculars. As for the alleged Doric presents of the *τράπω* type (i.e. with *-ρα-* instead of the *-ρε-* attested in other dialects), it is extremely likely that their *-ρα-* was due to paradigmatic leveling on the one hand and the tendency of Doric and North-West Greek to lower /e/ next to /r/ on the other.[24]

Second, there are problems with the Indo-Iranian evidence as well. Although two different branches seem to attest a zero-grade thematic root present stem made from

show a present stem to this root have one built with a *-i̯e/o-* suffix . . . Hence one can draw the conclusion that in Proto-Indo-European basically active verbs, that is, verbs mainly of action, and basically middle verbs, that is verbs of process, have different kinds of derived imperfectives standing in opposition to underived root perfectives. In verbs of action in which one finds an active root aorist, there is an active nasal-infix or reduplicated present, but not a thematic root present. . . . On the other hand, verbs of process with underived, middle root perfectives will generally have imperfectives consisting of root plus the thematic vowel or root plus the suffix *-i̯e/o-*” (44–5). It is indeed true that transitive roots with punctual verbal character do seem to prefer the formation of nasal presents instead of full-grade thematic root presents.

[17] As is evident from Schumacher 2004:463, a Proto-Celtic “*-luu̯-e/o- ‘sich lösen’” (‘free oneself of, escape from’) should be added to this Greco-Latin evidence. For the Greek and Latin verbs see also the thorough discussion in Seldeslachts 2001:109–17.

[18] See for the apophonically invariant behavior of *b^{h}uH- in PIE Jasanoff 2003:112–3 n. 52 with references.

[19] And in addition Proto-Celtic “*-luu̯-e/o-” (see n. 17 above).

[20] Similarly, the PIE present stem *suh$_1$-é/ó- sometimes reconstructed on the evidence of Hitt. *šuu̯e/a-*[21] ‘push (away), shove, cast off’ (see Kloekhorst 2008:797–8), Vedic *suváti* ‘impel, set in motion’ (see Hill 2007:255–64), and OIr. *soïd*, *·soí* ‘turn (tr./intr.)’ (see Schumacher 2004:605–7) is perhaps better replaced by a root-accented *súh$_{1/3}$-e/o- (see also Lehrman 1985:261 and 1998:228 on root accentuation in the Hittite cognate verb).

[21] E.g. by Lazzeroni (1978:145–7).

[22] As for forms like γράφω and γλύφω, see the quite different analyses in *LIV*^{2} 187 and 190 already hinted at above.

[23] On alleged ἐνίσπω ‘tell (of)’ see Hackstein 1997:33–4.

[24] See Méndez Dosuna 1985:410 n. 13, 412 n. 14 with references.

the PIE root *ǵeu̯s- ‘taste, enjoy’, Schumacher himself (2004:359) was strongly opposed to reconstructing a PIE present stem *ǵus-é/ó- for the following reason: “Theoretisch könnte urkelt. *-gus-e/o- mit aind. *juṣáte* ‘Gefallen finden an etw., mögen’ eine Gleichung bilden. Jedoch ist letzteres erst nachrigvedisch . . . , weswegen urkelt. *-gus-e/o- und nachrigvedisch *juṣáte* als unabhängige Bildungen zu betrachten sind.”[25] As a matter of fact, the figures for RV pres(ent) ind(icative) forms from *juṣá-* vs. other RV forms from *juṣá-* amount to 0:116 (with only 5 out of the 116 forms containing the augment). However, within the Rigveda at least the zero-grade thematic root presents made from roots with obvious punctual verbal character and/or with zero-grade aorist forms beside them show a rather similar behavior,[26] resulting in a grand total of 48 pres. ind. forms vs. 299[27] other forms (60 being augmented).[28] Therefore, one is inclined to apply Schumacher’s diachronic analysis of *juṣá-* to all of these *tudáti*-presents proper. This would imply that the *tudáti*-presents proper of Indo-Iranian were not inherited from PIE at all and still did not exist in Very Early Proto-Indo-Iranian, but came into being later within the history of Indo-Iranian as a consequence of reinterpreting what were originally aorist stems as present stems—or at least of treating old aorist stems like present stems, so that the old aorist stems could finally be provided with pres. ind. endings. This is exactly the kind of morphological process for which I coined the term “*tēzzi* principle” in Malzahn 2010:267–8.

As can be gleaned from the introductory chapter on the history of scholarship in Hill 2007, solutions via the “*tēzzi* principle” (*avant la lettre*) have been put forth before, first by Ernst Leumann (“Ursache ist, dass im verlauf der R̥gVedazeit zu thematischen aoristformen ein präsentischer indicativ (*juṣáti*) hinzugebildet wurde, der mit jenen zusammen ein neues präsens-system zu bilden anfing”; 1897:587).[29] Leumann was apparently later followed by Gonda (1962:221–4), who made the additional

[25] See also Schumacher 2004:37: “Ein Teil . . . könnte einzelsprachlich aus Wurzelaoristen abgeleitet sein (. . . , *-gus-e/o-, . . .).”

[26] These are: *r̥ṣá-* ‘sting’ 0:1, *kṣipá-* ‘hurl, sling’ 0:7, *khidá-* ‘tear, pull down’ 1:2 (1 augmented form), *khudá-* ‘push into’ 0:1, *gurá-* ‘greet’ 0:1, *tujá-* ‘push’ 1:4, *tudá-* ‘sting’ 0:4, *dáśa-* ‘bite’ 0:1, *diśá-* ‘point’ 0:2, *nudá-* ‘push’ 0:14 (2 augmented forms), *mr̥ḍá-* ‘feel pity for’ 0:40, *mr̥śá-* ‘seize’ 4:5, *miṣá-* ‘open/shut the eyes’ 3:4, *rikhá-* ‘scratch’ 0:1, *riśá-* ‘pull down’ 1:2, *rujá-* ‘break’ 4:29 (7 augmented forms), *vr̥ṣá-* ‘pour’ 0:12, *vr̥há-* ‘pull down’ 7:13 (1 augmented form), *vijá-* ‘cringe, wince’ 0:1, *viśá-* ‘enter into, settle’ 9:43 (6 augmented forms), *sr̥já-* ‘send out’ 13:96 (39 augmented forms), *spr̥śá-* ‘touch’ 4:7 (1 augmented form), *sphurá-* ‘kick’ 1:9 (3 augmented forms). These figures are based on the forms and attestations as indicated in Hill 2007.

[27] Or rather 48 vs. 415, if one includes the 116 non–pres. ind. forms made from *juṣá-*, which one is certainly entitled to do.

[28] As for the rest of the RVic zero-grade thematic root presents, the percentage of the pres. ind. forms is quite a bit higher, as becomes evident from a grand total of again 48 pres. ind. forms vs. only 132 others. The figures for *'yav* are even as high as 12:10; as for the other presents, the respective figures are *'acá-* ‘bend’ 1:0, *kirá-* ‘pour out, spread’ 1:4, *kr̥ṣá-* ‘draw (furrows), plow’ 0:4, *kr̥pá-* ‘lament’ 1:7, *krī́ḍa-* ‘play’ 5:17, *gū́ha-* ‘hide’ 3:9, *cr̥tá-* ‘join together’ 1:1, *tirá-* ‘promote, move’ 17:52, *bhurá-* ‘move rapidly, quiver’ 0:2, *ruvá-* ‘roar’ 1:4, and *suvá-* ‘prompt, goad’ 6:22. These figures are again based on the forms and attestations as indicated in Hill 2007.

[29] See on this approach Hill 2007:8–11.

suggestion that the "development of these pres. indic. may . . . be mainly due to the tendency to create indicatives expressing the psychological present beside forms with secondary endings which in accordance with the meanings of the root concerned were more—in 'aoristic' use—or less—in 'presentic' use—exclusively indicative of the culmination points of the processes."[30]

To be sure, the thematic aorist seems to be a young morphological category itself, as was already suggested by scholars like Thurneysen and Meillet. For this reason, Lazzeroni (1978,[31] see also Lazzeroni 1997:50) somewhat modified the views of Leumann and Gonda by assuming that the thematic root aorists and the ***tudáti***-presents were parallel transformations of athematic root aorists (at least mainly)[32] based on thematic-looking active 3pl. forms.[33] My impression is that Lazzeroni did not want to rule out the possibility that both transformation processes had already begun in

[30]Gonda 1962:224. Although I confess that I fail to understand Gonda's reasoning, I do not agree with the objection made by Hill (2007:14): "Gegen diese Erklärung spricht allerdings entschieden die Tatsache, dass Aoriste mit anderer Morphologie, z.B. die Wz.-aoriste oder die *-s*-Aoriste, im Vedischen nie sekundäre Ind.-Formen des „psychological present" entwickeln." As a matter of fact, in the language of the RV there existed quite a lot of thematic root presents right from the start, which cannot be said of the (recessive) athematic root presents and the (actually very few) *s*-presents; therefore, the application of the "*tēzzi* principle" to athematic root aorists and *s*-aorists may have been blocked on purely morphological grounds.

[31]Who based himself (just as Gonda evidently did, 1962:223) on the figures for RVic instances of zero-grade thematic root formations as given by Renou (1925:313); since these include all of the RV forms of what were descriptively simple thematic aorists as well, they can hardly be called significant, as was already noted by Hill (2007:13).

[32]"Un altro spunto . . . può essere stato fornito dal participio attivo dell'aoristo atematico ove la vocale apparteneva al suffisso *-ont* . . . e dall'ottativo" (Lazzeroni 1978:138); "Essi traggono origine . . . dalla terza persona plurale attiva dell'aoristo radicale e, forse, anche dalle forme nominali e modali" (Lazzeroni 1978:144). According to Bammesberger (1984:14), all of the zero-grade thematic root presents and aorists ever found in any branch may have been based on participles in **-ónt-* from an athematic root stem ("Diese Erklärung ist an sich für alle schwundstufigen thematischen Präsentien und Aoriste in den idg. Sprachen anwendbar"); this scholar was fully convinced "daß Präsentien des Typs *TiK-ó-* der indogermanischen Grundsprache wohl kaum zugeschrieben werden können" (Bammesberger 1984:7).

[33]According to Lazzeroni (1978:138–9), this analysis is confirmed by, and is able to account for, the fact that "nell'aoristo tematico vedico il medio è più raro che in ogni altra formazione," because in the middle he argues the 3pl. ending variant ***-ata*** prevailed over thematic-looking ***-anta***, so that the middle 3pl. forms were less apt to trigger thematizations; similarly Lazzeroni 1988:141–2: "Al medio . . . la desinenza della 3 pl. era ***-nto***." There exist, however, some ***media tantum*** among the thematic aorists of Vedic and Greek that are simply left unexplained by Lazzeroni. Evidently the starting point for these ***media tantum*** must have been 3pl. forms in ***-ánta*** and ****-ento***, respectively. In Greek, e.g. an athematic 3pl. ****(e)pút^h-ento*** was capable of being reanalyzed as a likewise athematic ****(e)pút^{h}e-nto*** on the model of athematic **(ἔ)θέντο**, and a new athematic 3sg. **(ἐ)πύθετο** coined on the model of athematic 3sg. **(ἔ)θέτο** could have been reinterpreted as an (*-e/o-*)thematic form, thereby triggering the creation of a new (*-e/o-*)thematic 3pl. **(ἐ)πύθοντο**. Quite possibly 3pl. forms such as **ἐγενέατο, ἀπικέατο, ἐπυθέατο** found in the manuscript tradition of Herodotus (see Kühner 1892:77) were genuine forms of Herodotus' own vernacular that owed their **-έατο** to a substitution of **-ντο** by **-ατο**, which would imply that formerly there had, in fact, existed forms of the ****(e)pút^h-ento*** type in Greek. Imperfect forms of the **ἀπεγραφέατο** type likewise transmitted in the mss. of Herodotus (see Kühner 1892:77) may simply have been based on the model of aorist forms such as **ἐπυθέατο**. On the middle forms of the Vedic ***tudáti***-presents see Lazzeroni 1988:142.

Late PIE;[34] this would be fully in line with his claim that PIE already had a thematic-looking ***athematic*** active 3pl. ending variant **-ont(i)* alongside ****-ent(i)***.[35]

However, as has already been pointed out by some authors, especially Hollifield (1977:57–83 with references) and Villanueva Svensson (2012:41 with references), what are descriptively active thematic root aorist forms of Indo-Iranian, Greek, and Slavic are often found alongside middle present and/or middle root aorist forms of the same meaning and/or have anticausative semantics. Therefore they are best thought of as based on formerly athematic 3sg. "middle" forms in PIE **-e* > ****-et*** that were reinterpreted as 3sg. active forms of thematic formations.[36] Now if Lazzeroni (1978:143) was indeed correct in claiming that "la sesta classe indiana . . . nasce ***con*** l'aoristo tematico, traendo origine dalle stesse vicende che hanno generato quest'ultimo," the ***tudáti***-presents proper should rather be regarded as based on 3sg. forms in ****-é-ti*** that had been formed to originally 3sg. athematic "middle"[37] aorist forms in ****-et*** via the ***tēzzi*** principle. Since the "middle" ending **-e* may have had a variant **-et* already in PIE times, one cannot exclude on purely morphological grounds that ***tudáti***-presents proper existed already in PIE as well.

The real problem with explaining ***tudáti***-presents proper via the ***tēzzi*** principle is that one expects this principle to have been applied only in IE languages that did ***not*** keep distinct present stems/imperfects and aorist stems/aorists, whereas at least according to the view of the Erlangen and Freiburg Schools, (Late) PIE was an aspect language of the very same kind as Ancient Greek,[38] and ***did*** keep distinct present

[34]But note Lazzeroni 1997:42 ("Gli indicativi col tema a grado ridotto, cosiddetti della VI classe sanscrita (sscr. ***tudati***, gr. **γράφω**) nascono, verosimilmente, da sviluppi monoglottici: difficilmente, in due lingue indoeuropee, troveremmo due verbi di questo tipo formati dallo stesso etimo").

[35]See Lazzeroni 1978:137–8, 1988:141–5, 1997:50, 2010:319.

[36]Cf. Hollifield 1977:76: "It can . . . be concluded that the thematic aorist as a type has originated from use of the Indo-European third singular middle ending *-o* or *-e* as a thematic vowel, by addition of *-t*, an active paradigm being built up after the third singular"; similarly Villanueva Svensson 2012:41: "According to a major theory, they originated as back-formed to an obsolete 3rd sg. middle **-e* recharacterized with act. **-t* . . . , a view supported by the frequent "middle" functional and/or paradigmatic profile of thematic aorists . . ." Note that the rarity of middle forms in thematic aorists can then be easily explained by the fact that generally speaking 3sg. forms are less marked, and therefore more likely to function as a starting point for thematizations than 3pl. forms.

[37]This despite the fact that, to judge from Hollifield's list (1977:109–11) and the treatment in Hill 2007, there were no obvious correlations of active forms of Indo-Iranian ***tudáti***-presents proper with what once might have been middle forms of other verbal stems from the same roots, with the possible exceptions of the active zero-grade thematic sigmatic aorists ***ámr̥kṣa-*** and ***áspr̥kṣa-***, which may be analyzed as sigmatized thematic root aorists based on 3sg. "middle" forms in ****-et***. The situation is different in Celtic, where "1. ****li̯i̯-e/o-*** 'fließen, überfließen'," ****-lu̯u̯-e/o-*** 'sich lösen'," "****su̯u̯-e/o-*** 'drehen' [tr./intr., M. M.]," and "****-tud-e/o-*** 'fallen'" all have anticausative semantics, to judge from the entries in Schumacher 2004:451–2, 463, 605–7, 642–6.

[38]This view is evidently also shared by Jasanoff (2003:3), who assumes explicitly a "loss of the imperfect : aorist distinction in Proto-Anatolian;" there are also, of course, scholars such as Strunk who assume that there was no such distinction in PIE before the branching off of Proto-Anatolian, but even Strunk agrees that within this very early kind of Proto-Indo-European, present forms "such as '*g^weh_2-ti* ' 'is taking a step' . . . were impossible and never coined, because their punctative root-meaning ('verbal character') and the function of the present tense excluded each other" (Strunk 1994:420 = 2005:1010). To be sure, even quite

stems and aorist stems both morphologically and semanto-syntactically.[39] Therefore, interpreting the *tudáti*-presents proper in the way basically suggested by Leumann, Gonda, and Lazzeroni seems to exclude any formation of *tudáti*-presents proper already in (Late) PIE.

It is at least possible to test the Leumann–Gonda–Lazzeroni hypothesis: if it is correct that with respect to aspect Ancient Greek preserved the Late PIE state of affairs, and at least Very Early Proto-Indo-Iranian still behaved exactly like Ancient Greek,[40] this hypothesis will predict that—in contrast to the other branches[41]—neither Ancient Greek nor Very Early Proto-Indo-Iranian had any *tudáti*-presents proper at all. As a matter of fact, this prediction is borne out. As has already been pointed out above, there is no good evidence for *tudáti*-presents proper in Ancient Greek at all, and extrapolating from the RV and the AV evidence suggests that the number of present indicative forms from *tudáti*-presents proper must have been practically zero in Very Early Proto-Indo-Iranian. Accordingly, what is left as evidence for *tudáti*-presents proper comes from branches in which the *tēzzi* principle could have been applied easily—mostly from Celtic, Germanic,[42] Baltic, and Slavic.[43] Note that according to Villanueva Svensson (2012:40), the thematic aorist is best assumed to have been quite alive not only in (Proto-)Slavic, but in the whole of "northern Indo-European," i.e. in Proto-Germanic and Proto-Baltic as well.

To sum up, I think it likely that zero-grade thematic root presents from roots with punctual verbal character (which I called *tudáti*-presents proper) still did *not* exist in PIE, but were created independently and separately via the *tēzzi* principle on the basis of thematic-looking originally athematic 3sg. zero-grade aorists in **-et* within the histories of most of the branches that had abandoned the original PIE aspect

recently some scholars have *not* hesitated to reconstruct presents such as **dō-mi*, see Szemerényi 1990:326–7 with references.

[39] In Ancient Greek, aorist imperatives and participles are used differently from present imperatives and participles, see e.g. Bakker 1966 and Ruijgh 2000. On the other hand, Vedic was no longer an aspect language (as per Tichy 1997), nor was Old Iranian (see Tichy 1997:596: "wohl schon indoiranische Sonderentwicklung"). Note in addition that the reduplicated so-called "causative" *aorists* of Old Indo-Aryan had developed out of reduplicated *imperfects* (as per M. Leumann 1962), and that the Vedic 3sg. *imperfect* form *áduha(t)* 'milked (tr./intr.)' seems to form an equation with the Greek *aorist* form ἔτυχε 'happened (to be at)'.

[40] As was evidently (implicitly) claimed by Hoffmann 1967:277 ("Als Hypothese sei . . . aufgestellt, daß Imperfekt und Ind.Aor. in ihren ursprünglichen, d. h. dem griechischen Gebrauch entsprechenden Funktionen *vor*vedisch folgendermaßen . . . verteilt waren . . .").

[41] Including Proto-Slavic, the aspect system of which may not even be based on the inherited PIE aspect system at all, see e.g. the discussions and references in Stang 1942:14–21 and Szemerényi 1990:336–41. Note in addition that according to received opinion the 2 and 3sg. forms of the Slavic *s*-aorist derive from PIE *imperfect* forms diachronically (see e.g. Stang 1942:64), and that some Slavic thematic aorists "continue displaced imperfects" as a whole, as per Villanueva Svensson 2012:40. (On the aorists of Slavic, see most recently Ackermann 2014.)

[42] Of course the number of Germanic examples would increase if one were still willing to derive the *lūkan*-type presents from zero-grade thematic root presents with an original root vowel **-ŭ-*. On this formation, see most recently Perridon 2011.

[43] As far as Hittite is concerned, the alleged examples of zero-grade thematic root presents have now been analyzed in a completely different way by Kloekhorst (2008:408–10, 798).

system (preserved in Ancient Greek only). Granted that in PIE there existed no or just a few thematic aorists, the reinterpretation of thematic-looking aorist forms as imperfect/present-stem forms can be considered a quite plausible process for such languages.

Abbreviations

LIV² = *Lexikon der indogermanischen Verben: Die Wurzeln und ihre Primärstammbildungen*, ed. Martin Kümmel and Helmut Rix. Wiesbaden: Reichert, 2001.

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The Case of the Agent in Anatolian and Proto-Indo-European

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It is a pleasure and an honor to join in this well-deserved tribute to Stephanie Jamison, a friend and colleague of long standing. I offer her as a modest token of respect and esteem the following reexamination of a topic that much interested both of us at the start of our respective careers more than three decades ago.

Our honorand argued cogently in two articles of 1979 that contrary to previous claims the ordinary case of the agent with the passive in Vedic and surely in Proto-Indo-European was the instrumental. Unfortunately, her findings have generally been ignored or wrongly rejected. Among recent handbooks that include discussion of morphosyntax Tichy (2000:65) does not acknowledge agency as a function of the PIE instrumental, nor does Matthias Fritz apud Meier-Brügger 2010:404–5. A happy exception is Fortson (2010:113), who lists it alongside means and accompaniment. Explicit responses to Jamison's claims have mostly been highly skeptical (Luraghi 1986:52–3) or negative (Strunk 1991:85–6). Hettrich (1990:103) does cautiously attribute to Proto-Indo-European the use of the instrumental to mark agency, but only as one of five cases employed in that function (see also Hettrich 2014:117). Since none of the works cited treat the Hittite evidence in a remotely satisfactory manner, while making some quite dubious assumptions regarding the expression of agency elsewhere, it seems useful to reexamine the topic.

1 The expression of agency with the passive in Hittite

Both Hettrich (1990:79–80) and Strunk (1991:84) properly call into question the argument by Starke (1977:101–4) against the use of the instrumental to mark the agent in Old Hittite on the grounds that agency was expressed by a circumlocution 'in the hand of X'. First of all, Strunk (1991:86–7) correctly refutes Starke's claim (1977:104–5) that the instrumental is not used in Old Hittite to mark accompaniment with animate referents, citing the use of the instrumental *pangarit* in the Anitta text KBo 3.22 Ro 5 (OH/OS)[1] to mean 'with mass(ed troops)' (see for the full argumentation Melchert

[1] I use the standard sigla OH, MH, and NH to refer to compositions from Old, Middle, and New Hittite and OS, MS, and NS to indicate the date of manuscripts from the respective periods.

1977:164–5). For reasons given below, the comitative use of the instrumental in the NS copies of the Laws §190 (KBo 6.26 iii 29 and KUB 29.34 iv 11) must also reflect genuine Old Hittite usage: ***takku=ššan*** GIDIM-***it tiezi / akkantit tianzi*** "If he has/they have intercourse with a dead person . . ."[2]

As per Hettrich (1990:80), the absence thus far of examples of the instrumental of agent in Old Hittite manuscripts may easily be due to chance. Nevertheless, as we have seen, Strunk (1991:86) still concludes that the instrumental of agent (with animate referents) is an innovation of New Hittite. Luraghi (1986:52–3, n. 8) severely criticizes Jamison for ignoring the relative chronology of the Hittite texts.

It is in fact Luraghi and Strunk who egregiously ignore the relative chronology of the use of the instrumental and the ablative to mark agency in Hittite. As I demonstrated in my dissertation of 1977, the ablative progressively replaces the instrumental ***in all functions*** (means, accompaniment, and agency) beginning already in the Late Middle Hittite period. Not only are instances of the instrumental in genuine New Hittite compositions reduced almost entirely to a few set expressions (see Melchert 1977:371–5), but already in Late Middle Hittite ***copies*** of older compositions we find hypercorrect use of the instrumental in ablatival function, that is, to mark separation, a function that never genuinely existed at any stage of Hittite (Melchert 1977:423).

Therefore, when we find in the titulature of a decree of the New Hittite king Ḫattušili III (KBo 6.28 Ro 4–5) the expression *ŠA* LUGAL [URU]***Kuššar*** [d]***siúnit k[anešša]ndaš*** NUMUN-***aš*** "descendant (lit. seed) of the King of Kuššar recognized (favored) by the god(s)," we must conclude that this usage is an archaism reflecting Old Hittite usage. It cannot possibly reflect an innovation, since a New Hittite expression could only stand in the productive ablative. The antiquity of the construction is confirmed by the full phonetic spelling of 'god' and the mention of the city of Kuššar, associated with the beginnings of the Hittite kingdom. The entire phrase 'of the King of Kuššar recognized by the god(s)' is surely borrowed from an old composition. Just like other uses of the instrumental in New Hittite compositions, ***šiunit kaneššant-*** is a fixed expression. Given this certain example, we may also take seriously the one in an NS copy of an Old Hittite text, the Hittite version of the ***šar tamḫari*** 'king of battle' narrative, KBo 22.6 i 24: [GIŠ]TUKUL.ḪI.A-***iš=wa=tta šiunit piyanteš*** "Weapons (are) given to you by the god(s)" (cited by Hettrich 1990:78). I must stress, however, that this text as it comes down to us shows clear signs of conscious archaizing (see Rieken 2001). This example alone would thus not have probative value.

I must insist on the methodological principle that in judging whether a given feature is an archaism or an innovation one must not apply the relative chronology of the attestations in a blind and mechanical fashion.[3] It is not rare that a later manuscript

[2]Reading and interpretation thus with Hoffner 1997:150 and 225, contra Melchert 1977:247–8.

[3]As argued in Melchert 2013:161–2 n. 12, the MS copy KBo 39.8 of the Maštigga ritual is rife with innovations as well as errors and unreal usages, while the NS copies often preserve the more archaic usage of the archetype.

of an older composition nevertheless preserves genuine archaisms. While arguing for the extant Hitt. ***šar tamḫari*** as a clear case of conscious archaizing, Rieken (2001:579–80) correctly affirms that the text also contains much correct Old Hittite grammar. In deciding which features are genuine archaisms and which are not, one must treat each case separately ***and in terms of whether a given usage can be motivated as an innovation.*** Not only the evidence that the instrumental was a moribund category in New Hittite replaced in all uses by the ablative, but also the context and orthography of the example of the instrumental of agent in the decree of Ḫattušili III argue decisively that it must be an archaism reflecting a feature of Old Hittite grammar.

Luraghi (1986:52–3) bases her skepticism about reconstruction of the instrumental or any case as the marker of agency in Proto-Indo-European on the premise that such a reconstruction depends on reconstruction of a passive for the proto-language, which she regards as highly doubtful. However, use of the finite ***middle*** (mediopassive) in a passive sense is attested in all the oldest attested Indo-European languages, including Old Hittite (see Neu 1968:112). There seems little basis for doubting that this use of the middle is of PIE date. However, Jamison (1979a:201 and passim) emphasizes that three-fourths of the Vedic occurrences of the passive plus expressed agent involve past participles, and the majority of the remaining examples occur with present mediopassive participles. Hettrich (1990:80) correctly stresses that Hittite shows a similar preponderance of expressed agent with past participles and elsewhere (1990:60–1) points out that Latin and Tocharian share this feature. He correctly concludes that this matching peculiarity in distribution is unlikely to be due to chance and is surely inherited, probably ***alongside*** the more rarely realized possibility of expressed agent with the finite mediopassive.

Hettrich (1990:61 n. 18) does note further, however, that whereas in Vedic the expressed agent with the past participle usually does not form a predicate (see Jamison 1979a:201–3), in Hittite most instances of expressed agent plus past participle ***are*** precisely predicatival in clauses with expressed or unexpressed copula. In the restricted but nevertheless fairly large corpus of assured New Hittite compositions the ratio is ten to one, and it can scarcely be accidental that the one attributive example (KBo 4.12 Ro 8–9) involves the expression ***kaneššant-*** 'recognized, favored': [m]***Middannamūwaš=ma IŠTU ABI=YA kaneššanza*** UN-***aš ēšta*** "Middannamuwa was a person recognized/favored by my father." As we will see below, the distribution of expressed agent with the past participle in Hieroglyphic Luvian agrees rather with that in Vedic, showing almost entirely attributive instead of predicatival syntax. Since all of the Luvian attributive examples involve its functional equivalent of Hitt. ***kaneššant-***, it is ***conceivable*** that Anatolian inherited predominantly the attributive type, which was then extended as an innovation to predicatival use. I find it far likelier that the different ratios of attributive versus predicatival past participles with expressed agent reflect rather the very different textual genres in the respective corpora and must share with Hettrich (1990:61 n. 18) skepticism about the claim of Jamison (1979a:204) that the

preponderance of attributive examples in Vedic reflects "general linguistic considerations."[4] As per Hettrich, the more general preponderance of expressed agents with participles is an inherited feature from Proto-Indo-European. I will return to this point in my discussion of the overall issue of which case(s) Proto-Indo-European used to express the agent with the passive.

2 The expression of agency with the passive in Luvian

I know of no examples of expressed agent with a passive in the quite limited corpus of Cuneiform Luvian incantations embedded in rituals of Kizzuwatna attested in Ḫattuša (for their language as representing a koineized Luvian dialect of Kizzuwatna see Yakubovich 2010:Ch. 1, esp. 68–73). In Hieroglyphic Luvian texts of the period after the Hittite Empire I have identified eleven examples. Their absence in the few and imperfectly understood texts from the Hittite Empire period may easily be due to chance. Only one attestation is predicatival, while five are attributive and five others appositional to nouns, and it can hardly be accidental that nine of the last ten involve the Luvian verb *aza-*. This verb is usually translated as 'love', but as shown by Gérard (2004), the verb is used exclusively of an action taken by a god or the gods towards a human. Furthermore, the verb regularly takes as a determinative LITUUS, which otherwise qualifies verbs of vision and perception (also once OCULUS 'eye'). These facts refute all attempts to connect HLuv. *aza-* with Hitt. *aššiya-* 'be dear, beloved' (including my own in Melchert 1987:200). A *transitive* verb expressing divine favor and marked with a determinative that refers to sight shows that we are dealing with the same semantic development as in Hitt. *kanešš-* 'recognize, have regard for, favor'. Its etymology may be left for another occasion, but there can be no doubt that HLuv. DEUS-*na/ni-ti á-za-mi-* 'favored by the gods' is the direct functional match of Hitt. *šiunit kaneššant-*.[5]

In addition to eight examples of the generic 'favored by the gods' we also find one with named deities instead (KARKAMIŠ A15b §1; Hawkins 2000:130). It is unlikely to be accidental that the one attributive example with a participle other than *á-za-mi-* 'favored' occurs together with it in an expanded rhetorical figure (MARAŞ 1 §1h; Hawkins 2000:263): DEUS-*na-ti* (LITUUS)*á-za-mi-sà* CAPUT-*ta-ti* (LITUUS) *u-ni-mi-sa* FINES-*ha-ti* AUDIRE-*mi-sà* REX-*ti-sá* "the king favored by the gods, known by the people, famed (lit. heard of) abroad."

We do have one predicatival example comparable to the well-attested Hittite

[4] While a far more systematic study would be required to demonstrate the role of genre and style, I have a strong impression that both the Vedic hymns and the preponderantly self-promoting Hieroglyphic Luvian monumental inscriptions have a fondness for epithets, while most *extant* genres of Hittite texts do not. If this impression is correct, the frequent use of past participles as epithets would be motivated, since they allow more possibilities for further elaboration (including expressed agents!) than ordinary adjectives.

[5] I should add that *aza-* is also well attested as a finite verb with deities as the subject and a human as the direct object (e.g. KARKAMIŠ A11a §7; Hawkins 2000:95), again like its Hittite counterpart *kanešš-*.

type (KARAHÖYÜK §16; Hawkins 2000:290): POCULUM.PES.*67(REGIO)-*wa/i-mu-tá-*ʹ 3 URBS-MI-*ní-zi/a la/i/u-kar-ma*(URBS) FRONS?.*282-*pi-i(a)*(URBS) *zu(wa)-ma-ka*(URBS) DOMINUS-*na-ti* DARE-*mi-zi/a* "In the land POCULUM three cities, Lukarma, Hant . . . piya, and Zu(wa)maka, (are) given to me by the lord." In sum, the Hieroglyphic Luvian evidence confirms that the primary locus of the expressed agent with the passive in Anatolian was, as elsewhere, in syntagms with the past participle and with the instrumental marking the agent.

3 The expression of agency with the passive in Proto-Indo-European

The Hittite and Luvian evidence unequivocally supports the conclusion of Jamison (1979b:143) and Hettrich (1990:101) that the instrumental case had the role of marking the agent with the passive, primarily with verbal adjectives, in Proto-Indo-European.

Hettrich (1990:64–6 and 2014:114–17) makes a strong case for the use of the dative already in Proto-Indo-European for the agent in deontic contexts with a predicatival verbal noun or adjective, a construction attested in many older Indo-European languages, including Hittite: KUB 6.44 iv 23 (NH) [*t(uk=ma) kī ut*]*tar* ŠÀ-*ta šiyanna išḫiūll=a ēšd*[(*u*)] "Let this matter be for you to seal in (your) heart and an injunction." However, Hettrich's characterization of such constructions as "passive," including expressly already in Proto-Indo-European (1990:77), is questionable. As my translation of the Hittite and his own translations (1990:64–5) of examples from other languages show, there is no proof that the syntax of such sentences is passive. The mere fact that the patient appears in the nominative of the matrix clause in no way establishes passive syntax. There is much debate about whether Proto-Indo-European had true infinitives, but I know of no serious claim that the PIE infinitive was marked for diathesis (cf. Meier-Brügger 2010:317–8 and Keydana 2013:82 n. 8, with references). Keydana (2013:82 and passim) argues for a *syntactic* contrast of active and passive in the Vedic infinitive, but not all of his examples for the passive reading are probative. The best evidence for passive syntax of the Vedic infinitive is the occasional use of the instrumental instead of the dative to mark the agent with a predicatival deontic infinitive: RV 7.22.7c *tvā́ṃ nṛ́bhir hávyo viśvádhāsi* "You are to be summoned by men everywhere" (cited by Hettrich 1990:69; see also RV 7.33.8 cited by Keydana 2013:159). However, Hettrich himself (1990:69 and 77) argues persuasively that the use of the instrumental in the deontic construction is an innovation of Indo-Iranian.[6] It is thus an entirely open question whether the dative marked the agent *with the passive* in Proto-Indo-European.

Hettrich (1990:101 and 2014:117) asserts that the ablative, genitive, and locative also

[6] The syntax of the Italic gerundive is also surely passive, but the formation is generally held to be an Italic innovation.

marked the agent with the passive in Proto-Indo-European. The degree of validity of this claim varies markedly for each of the three cases named.

The alleged use of the locative to mark agency will not detain us long. First of all, several of the Vedic examples cited by Hettrich (1990:97–8) likely do not involve passives at all: see the plausible alternative analyses of Jamison and Brereton (2014:273, 1121, and 1272) for RV 1.117.11, 8.45.27, and 9.45.4 respectively. More importantly, as Hettrich's own translations show, even in the genuine passive examples from Vedic, Greek, Latin, and Gothic, the locative expresses the locus of the action marked by the passive (predictably almost all of the genuine examples involve plurals and thus *groups*, which may easily be conceived as occupying spatial domains).[7] It is commonplace that participants in real-life situations may play several roles at once. It is always the prerogative of the speaker to choose which role he or she wishes to express explicitly in speech. If the composers of the passages cited chose a locative, then we must conclude that they wished to express the role of the participants as the locus of the action. These examples provide *no* evidence for the locative case as marking the agent with the passive. A confirmatory argument that the locative did not mark the agent with the passive in Proto-Indo-European or anywhere else comes from the fact that locatives with animate referents that do happen to occur in passive contexts predictably show no special association with past participles, which as both Jamison and Hettrich have shown was the original locus of the expressed agent.

As to the ablative, contra Hettrich 1990:85–6 Hittite cannot be used to support the use of the ablative to mark agency with the passive in Proto-Indo-European. The problem is not the absence of the ablative of separation with animate referents. Whether or not there is an example in an Old Hittite manuscript (see Melchert 1977:158–9 on the crux KBo 3.22 Ro 11–2), there is no reason to doubt that such a usage was possible in Old Hittite. In a Middle Hittite manuscript of the Old Hittite composition KBo 21.22 Ro 25 we find *nu=wa kuez* ᵈUTU-*az* "From which Sun-god (do you come)?" There is no justification for Starke's characterization of the text as "jüngere Sprache." There is just one example from a New Hittite composition, KBo 4.3 ii 58–9: [(*peran par*)]*ā=ya=zzi apūn* G[(E$_6$-*a*)]*n IŠTU* MUNUS-*TI* [(*tešḫaš*)] "He also abstained (lit. *-zzi tešḫaš* 'withheld himself') from a woman through that (whole) night before" (see Melchert 1977:348 and Güterbock and Hoffner 1997:303, with references).

However, for pragmatic reasons use of the ablative of separation with animate (especially human) referents would at all times have been exceedingly rare. That this very marginal usage is the source of the ablative of agent in New Hittite as claimed by Hettrich is inherently implausible. In any case, since all evidence in Hittite and Luvian for use of the ablative to mark the agent comes from grammars in which the ablative had taken over *all* uses of the instrumental, the principle of economy argues that we

[7]This also applies to the alleged examples in deontic contexts. See Jamison and Brereton 2014:402 and 406 on RV 2.2.3 and 2.4.1 respectively, contra Hettrich 1990:98.

should take that usage also as deriving from the instrumental.[8] This conclusion is confirmed by the fact that the ablative of agent in New Hittite shows the same strong association with past participles as the instrumental of agent (eleven instances versus only three with the finite passive), while the ablative of separation naturally shows no such correlation at any stage of Hittite.[9] Proof for the ablative of agent must come from elsewhere.

Hettrich (1990:84–92) finds purported evidence for such a use in multiple older Indo-European languages, but none of it is probative. First of all, one *cannot* infer an original use of the ablative *case* to mark the agent from such a use of *prepositions* meaning 'from' plus the ablative. By this reasoning one would derive the modern English use of 'by' to mark the agent with passives from an earlier locative of agent, but this use dating from the 15th century clearly developed from the already existing use to express means, an innovation attested from a much earlier date, not from the original locatival sense of the preposition. The constructions of Old Persian, Armenian, Baltic, Slavic, and Germanic involving various prepositions meaning 'from' are thus no evidence for a PIE ablative of agent. For Latin Hettrich (1990:84) cites an example of the bare ablative with the participle *prognātus* 'born' and refers the reader to Kühner and Stegmann 1966:375–6 for further "ablatives of agent." In reality, Kühner and Stegmann state unequivocally that the bare ablative with participles such as *(g)nātus*, *genitus*, *ortus*, etc. and finite forms of the verb *nāscī* 'be born' expresses *origin*, not agency, and that the agent with passive verbs is expressed only by *ab* plus the ablative, except in poetry and late prose. As already noted by Jamison (1979b:137) and conceded by Hettrich (1990:86–8), all Vedic examples of the ablative with the mediopassive forms of *jan-* 'give birth' can likewise express merely origin. His protest that an ablative of origin is not *incompatible* with an ablative of agency is beside the point: proof that the ablative marked agency can only come from examples where agency alone is a felicitous interpretation.

The only remaining evidence for the ablative marking agency is the occasional use of the ablative of the first-person plural pronoun in Vedic *asmát* beside instrumental *asmā́bhis* in passive constructions. Hettrich (1990:89) properly sets aside the examples from deontic contexts, since as discussed above these are clearly secondary, replacing the original dative. He stresses that we are then left with ten examples of the ablative versus only two of the instrumental. However, two of the alleged ablatival examples are with the verb *jan-*, which as already indicated mark origin, not agency. As per Jamison and Brereton (2014:867), the only alleged case with the first-person singular

[8]It is true that Melchert and Oettinger (2009) derive both the Old Hittite instrumental ending *-(i)t* and the ablative-instrumental *-adi* of Luvian from original PIE ablatival endings, but these had already *prehistorically* totally replaced instrumental PIE *-h_1 in the same fashion that in Middle and New Hittite the ending *-(a)z(zi)* < *-*(o)ti* in turn replaced the Old Hittite instrumental. Their ultimate derivation offers no support for attributing their use to mark the agent with passives directly to an ablative marking separation.

[9]For occurrences of the New Hittite ablative of agent see Melchert 1977:367. A survey of ablatives of separation in OH/OS finds that all 30 examples with full context occur with finite verbs.

ablative *mát* (RV 6.67.2) may likewise express origin: "this inspired thought from me."[10] In two instances the ablative *asmát* is most naturally understood as expressing separation: in RV 6.74.3 with the verb 'release' and in 7.34.1 with the verb 'go forth' (Jamison and Brereton 2014:875 and 926 respectively). Finally, in RV 5.33.1 the ablative may express cause: 'because of us' (Jamison and Brereton 2014:698). In sum, we actually have only four instances where the ablative *asmát* is most naturally taken as expressing the agent, against two of instrumental *asmā́bhis* (if we restrict ourselves to the older Family Books, we are left with precisely one of each: ablative in RV 4.41.1 and instrumental in RV 3.62.7). A grand total of only six occurrences makes it quite impossible to determine whether those with the ablative represent an archaism or a marginal innovation. I therefore regard this data as a far too slender basis on which to posit the use of the ablative to mark agency in Proto-Indo-European.[11]

The genitive of agent is attested in Indo-Iranian, Greek, Tocharian, and Lithuanian. In Tocharian the genitive expressing agent is almost exclusively limited to use with past participles and gerundives (with the latter replacing the lost dative): see Krause and Thomas 1960:82–3 and Carling 2000:10. The same is true of the perlative (Krause and Thomas 1960:85 and Carling 2000:13), which for reasons given above may be taken to reflect the similar distribution of the PIE instrumental that it replaced. In Lithuanian, where the genitive is the regular case of the agent, the passive is formed periphrastically with participles, which may also be taken as reflecting an inherited use of the genitive to mark the agent in the context of passive verbal adjectives (Hettrich 1990:95). The Greek compound *διόσδοτος* 'god-given' (also as a personal name) and the Old Persian "*manā kr̥tam*" construction are cited as further evidence for an inherited genitive of agency with passive verbal adjectives (see most recently Lühr 2004:8).

Jamison (1979b:133–43) argues that the patterning of the evidence in the oldest Indo-Iranian and Greek points rather to the genitive of agent as a parallel and independent innovation in each language. Her cogent arguments against the *primacy* of the genitive of agent with past participles in favor of the instrumental do not, however, preclude that such a use of the genitive goes back to Proto-Indo-European. Hettrich (1990:85 and passim) correctly insists that more than one case can compete in a given function: it is quite clear that the genitive and the perlative both mark the agent synchronically in Tocharian. Nor does the fact that the genitive of agent is not attested in the very oldest Greek and Indo-Iranian texts prove *per se* that it is an innovation. As stressed above regarding the instrumental of agent in Hittite, the key

[10] For a different analysis of *mát* as expressing agency suppletively for the instrumental see Lühr 2004:13.

[11] Hettrich's analysis of the ablative use with the first-person pronoun as an archaism (1990:90–1) depends on his claim that use of the instrumental to mark agency began at the lower inanimate end of the agency hierarchy and did not reach the highest animate position, the first person. However, this account of the origin of the instrumental of agency is itself less than assured. For an alternative analysis see Lühr 2004: 14–5.

question is whether its appearance when it *is* first found can be plausibly motivated as an innovation or not.

Answering this question very much depends on just how the genitive of agent came about, a thorny question that I cannot adequately address here. I must share the doubts of Hettrich (1990:70–1) that the occurrence of multiple cases to express the *patient* of certain active verbs can explain the use of the genitive to express the *agent* of the passive of the same verbs (contra Jamison 1979b:134–5). Nor does this account seem plausible for the genitive of agent with the passive of verbs of speaking. However, Jamison makes a good case for the genitive of agent with past participles arising from syntactic reanalysis of a phrase like RV 10.155.4c *hatā́ índrasya śátravaḥ* "Indra's smashed rivals" as "rivals smashed by Indra," based on association with the clearly agentive *hatā́ índreṇa* 'smashed by Indra' (RV 10.108.4d). Compare the similar arguments of Cardona (1970, esp. 8–9) for both Indic and Iranian. Examples such as Eng. *God's anointed* = *the one anointed by God* raise the possibility that Greek *διόσδοτος* is in origin '(the/a) god's given one'. The modest extension in late Vedic of the genitive of agent from participles to finite verbs may merely imitate the similar expansion of the instrumental of agent on a larger scale. I personally cannot judge whether the required reanalysis is trivial enough to have occurred independently in multiple traditions.

4 Conclusion

The instrumental was certainly used to express the agent with the passive in Proto-Indo-European, primarily with passive verbal adjectives, a particular correlation still robustly attested in Vedic, Hittite, and Luvian (and likely also in Tocharian with the perlative). Since passive function of the mediopassive is also of PIE date, we may also suppose that the instrumental was used in the rare instances where the agent was expressed with a finite mediopassive. In deontic constructions the dative marked the agent, but whether such clauses had passive syntax in Proto-Indo-European is an open question. There is no compelling evidence for use of either the locative or the ablative to indicate the agent with a passive in Proto-Indo-European. Whether the genitive of agent existed in Proto-Indo-European or not depends on the plausibility of its appearance in Indo-Iranian, Greek, Tocharian, and Lithuanian being due to parallel and independent innovations.

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Šāhs at the Pass of Thermopylae*

ANGELO O. MERCADO

1 Introduction

As witnessed by recent comic-book and movie retellings, the Greco-Persian Wars continue to capture the popular imagination. One detail of the war in particular has perhaps gotten more attention from entertainment-industry professionals than scholars, and that is the Persian–Spartan verbal exchange on the eve of the Battle of Thermopylae, recorded by Herodotus in Book 7 of his *Histories*. In this paper, I examine Herodotus's etymological figure *τόδε εἰπεῖν τὸ ἔπος*, by which he introduces the verbal exchange, and parallels to the Persian boast in the *Šāh-nāma* of Ferdowsī. Analysis of these makes Herodotus' report of the repartee doubly "epic": the *figura etymologica* is formulaic in Homer, and the image of arrows hiding the sun is a Persian epic formula. The vaunting Persian at Thermopylae was thus likely drawing from Iranian epic, in which Dieneces the Spartan unknowingly participates, but Herodotus recoups his counter-boast for Greek tradition.

2 Herodotus 7.226

To conclude his narration of the Battle of Thermopylae, Herodotus catalogs the brave men of the fight, foremost of whom was Dieneces the Spartan for his courage and wit in the face of Persian intimidation:

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(1) Hdt. 7.226 (tr. de Sélincourt)

[§1] *Λακεδαιμονίων δὲ καὶ Θεσπιέων τοιούτων γενομένων ὅμως λέγεται ἀνὴρ ἄριστος γενέσθαι Σπαρτιήτης Διηνέκης τὸν τόδε φασὶ εἰπεῖν τὸ ἔπος πρὶν ἢ συμμεῖξαί σφεας τοῖσι Μήδοισι, πυθόμενον πρός τευ τῶν Τρηχινίων ὡς ἐπεὰν οἱ βάρβαροι ἀπίωσι τὰ τοξεύματα, τὸν ἥλιον ὑπὸ τοῦ πλήθεος τῶν ὀϊστῶν ἀποκρύπτουσι τοσοῦτο πλῆθος αὐτῶν εἶναι* [§2] *τὸν δὲ οὐκ ἐκπλαγέντα τούτοισι εἰπεῖν, ἐν ἀλογίῃ ποιεύμενον τὸ τῶν Μήδων πλῆθος, ὡς πάντα σφι ἀγαθὰ ὁ Τρηχίνιος ξεῖνος ἀγγέλλοι, εἰ ἀποκρυπτόντων τῶν Μήδων τὸν ἥλιον ὑπὸ σκιῇ ἔσοιτο πρὸς αὐτοὺς ἡ μάχη καὶ οὐκ ἐν ἡλίῳ. ταῦτα μὲν καὶ ἄλλα τοιουτότροπα ἔπεά φασι Διηνέκεα τὸν Λακεδαιμόνιον λιπέσθαι μνημόσυνα.*

[§1] Of all the Spartans and Thespians who fought so valiantly the most signal proof of courage was given by the Spartan Dieneces. It is said that before the battle he was told by a native of Trachis that, when the Persians shot their arrows, there were so many of them that they hid the sun. [§2] Dieneces, however, quite unmoved by the thought of the strength of the Persian army, merely remarked: "This is pleasant news that the stranger from Trachis brings us: if the Persians hide the sun, we shall have our battle in the shade." He is said to have left on record other sayings, too, of a similar kind, by which he will be remembered.

The etymological figure[1] *τόδε … εἰπεῖν τὸ ἔπος* is striking. Herodotus uses the verb *εἰπεῖν* on its own in various forms 324× and the noun *ἔπος* likewise 64× (most frequently in accusative, 23× sg., 22× pl.), but the combination is rare, as are *λόγον εἰπεῖν* (3×) and *ἔπος λέγειν* (1×), in contrast to *λόγον λέγειν* (16×) (per *TLG*; see Hollmann 2000 on *ἔπος*). Herodotus appears to be memorializing Dieneces with an etymological figure formulaic in Homer (24× in both epics per *TLG*; see (2) and (3) on the next page).[2]

Λόγον εἰπεῖν, *ἔπος λέγειν*, and *λόγον λέγειν* are absent from Homer. The examples in (2) show ordering of the verb before the noun. Herodotus's construction most closely resembles the example from *Iliad* 7 (2b) with *τόδ' εἰπέμεναι … ἔπος*. The examples in (3) have the noun ordered before the verb; in the majority of (3c) the demonstrative participates in the formula. In almost all instances, one member of the figure occupies either position of the fourth dactyl, with preference for setting the other member in the third or sixth dactyl.

[1] I adopt Schwyzer's definition of *figura etymologica* (1950:74): "wird der Akkusativ des Inhalts von einem Substantiv gebildet, das der gleichen etymologischen Sippe wie das Verbum angehört (daher die nur für die beiden Urformen passende und nicht eindeutige Bezeichnung *figura etymologica*)." Cf. n. 2.

[2] See Clary 2009 for a more nuanced treatment of etymological figures in Greek epic. As for formulas, for present purposes, Parry's (1971:13) classic definition suffices: "an expression regularly used, under the same metrical conditions, to express an essential idea."

(2)	a.	*Od.* 23.342	εἶπεν | ἔπος	3–⏑|⏑ 4–
		Od. 18.166, 171	εἴποιμι | ἔπος	– 3–⏑|⏑ 4–
		Il. 20.250	εἴπῃσθα | ἔπος	– 3–⏑|⏑ 4–
	b.	*Il.* 7.375	**τόδ' εἰπέμεναι | πυκινὸν ἔπος**	⏑ 2–⏑⏑ 3–|⏑⏑ 4–⏑⏑
		Il. 24.75	**τί . . . εἴπω | πυκινὸν ἔπος**	⏑ … – 3–|⏑⏑ 4–⏑⏑
		Il. 24.744	**οὐδέ τί . . . εἶπες | πυκινὸν ἔπος**	1–⏑⏑ … – 3–|⏑⏑ 4–⏑⏑
	c.	*Il.* 1.108, 543	| εἶπας ἔπος	|– 4–⏑⏑
		Il. 7.394	| εἰπεῖν ἔπος	|– 4–⏑⏑
		Od. 19.98	| εἴπῃ ἔπος	|– 4–⏑⏑
(3)	a.	*Od.* 22.392	ἔπος εἴπωμι |	⏑ 2– – 3–⏑|
	b.	*Od.* 16.469	**| ἔπος . . . ἔειπεν**	|⏑ 4– … ⏑ 6– –
		Od. 14.509	**| ἔπος** νηκερδὲς **ἔειπες**	|⏑ 4– – 5–⏑⏑ 6– –
		Il. 5.683	**| ἔπος** δ' ὀλοφυδνὸν **ἔειπε**	|⏑ 4–⏑⏑ 5–⏑⏑ 6– –
		Il. 23.102; *Od.* 19.362	**| ἔπος** δ' ὀλοφυδνὸν **ἔειπεν**	|⏑ 4–⏑⏑ 5–⏑⏑ 6– –
	c.	*Il.* 3.204	**τοῦτο | ἔπος** νημερτὲς **ἔειπες**	3–⏑|⏑ 4– – 5–⏑⏑ 6– –
		Od. 16.69; 23.183	**τοῦτο | ἔπος** θῦμαλγὲς **ἔειπες**	3–⏑|⏑ 4– – 5–⏑⏑ 6– –
		Il. 15.206; *Od.* 8.141	**τοῦτο | ἔπος** κατὰ μοῖραν **ἔειπες**	3–⏑|⏑ 4–⏑⏑ 5–⏑⏑ 6– –
		Od. 21.278	**τοῦτο | ἔπος** κατὰ μοῖραν **ἔειπε**	3–⏑|⏑ 4–⏑⏑ 5–⏑⏑ 6– –
		Od. 8.397	**οὔ τι | ἔπος** κατὰ μοῖραν **ἔειπεν**	3–⏑|⏑ 4–⏑⏑ 5–⏑⏑ 6– –

However, the collocation *ἔπος εἰπεῖν* is found three other times in the *Histories* (4),[3] which at first blush appear not to function the same as in 7.226. In fact, the passages exhibit a bundle of recurring features that may suggest a different function for the etymological figure:

(4)	a.	3.151.1	*εἶπε τοῦτο τὸ ἔπος*	(A Babylonian to Darius, introducing mention in *oratio recta* of the *adynaton* that Babylon would fall only when mules start bearing young.)
	b.	4.143.1	*τοιόνδε εἴπας . . . ἔπος*	(Darius to Artabanus in *oratio obliqua* on preferring to have men like Megabazus, his commander in Europe, over rule of Greece.)
	c.	4.144.1	*εἴπας τόδε [τὸ] ἔπος*	(Hude's brackets. Megabazus to the Byzantines in *oratio obliqua* on the Chalcedonians' poor choice of settlement.)

Examples (4a)–(c) are all constructed as verb + noun + demonstrative, and all intro-

[3]A related example is 6.65.3 *τὸ ἔπος, τὸ εἶπε* (Leotychidas, prosecuting Demaratus at Cleomenes' instigation, adducing in *oratio obliqua* Ariston's oath that Demaratus was not his child), which does not meet the structural description of verb + internal accusative. Another is 6.37.2 *τὸ ἔπος εἶπαι* (regarding the content of a message from Croesus, a Lydian, to the Lampsacenes concerning Miltiades), but *ἔπος* is the subject of *εἶπαι*.

duce non-Greek speech. The Persian utterances introduced by (4b)–(c) are all in *oratio obliqua*, while the Babylonian taunt that follows (4a) is in *recta*. If these characteristics betray Herodotus' systematicity and intentionality, the fact that 7.226 possesses the morphosyntactic features of (4b)–(c) but has a Spartan subject is curious (though see n. 3). On closer inspection, Herodotus' use of the *figura etymologica* in (4) patterns with a subset of the Homeric examples in (2)–(3), where the epics' antagonists can be the subjects:

(5) a. Narrator's voice : non-Greek/ANTAGONIST subject

Il. 5.683 (3b)	Sarpedon asks Hector for help in the fight : Sarpedon *ἔειπε*

b. Non-Greek/ANTAGONIST's voice : non-Greek/ANTAGONIST subject

Il. 7.375 (2b)	Priam instructs Trojans on a ceasefire and offer of gifts to Greeks : herald *εἰπέμεναι*
Il. 7.394 (2c)	Idaeus the herald conveys Priam's message from 7.375 : herald *εἰπεῖν*
Il. 24.744 (2b)	Andromache laments over Hector's body : Hector *εἶπες*
Od. 8.141 (3c)	Euryalus, Alcinous' son, responds to his brother Laodamas' idea to challenge Odysseus in their games : Laodamas *ἔειπες*
Od. 8.397 (3c)	Alcinous commands Euryalus to make amends for improperly challenging Odysseus : Euryalus *ἔειπεν*

c. Greek/PROTAGONIST's voice : non-Greek/ANTAGONIST subject

Od. 21.278 (3c)	Odysseus praises Antinous' approach to the contest with the bow : Antinous *ἔειπε*

The foreign subjects of Herodotus' etymological figure in (4) are thus not mutually exclusive of the Spartan in (1), since, like Homer, the historian aimed "to accord glory to the great and wonderful *erga* both of Greeks and non-Greeks" (Marincola 2006 [2008]:18).

Let us turn to the Persian boast itself. The image of arrows hiding the sun has been found outside Herodotus, but the treatment of the parallels in the literature amounts to trivia and/or dogma. West (2009:92) passes on Merkelbach 1975:203, who reports Meuli 1954:66, with n. 16:

> ALFRED BLOCH weist mir das gleiche Wort mindestens ein halbes Jahrtausend früher als die von NÖLDEKE aus Daqīqī und Firdawsī angeführten

> Stellen im Indischen nach; ich gebe hier nur das wichtigste [*MBh.* 4.48.3, v.7, and v.16; 7.16.60; 8.10.19, chap.15.21, v.22, and v.24; *R.* 3.25.33b, v.35a, and v.40a].

who builds upon Nöldeke 1923:3–5:

> Nun glaube ich aber sogar ein Herodotisches Geschichtchen für historisch erklären zu können, das auch ich früher nur für eine hübsche Anekdote halten mochte. In dem kleinen Teile des persischen Shāhnāme, der von dem früh verstorbenen Daqīqī herrührt, heißt es: [(18b)]. So auch in dem von Firdausī herrührenden, bei weitem umfangreicheren Teile des Shāhnāme: [(13a)] und [(13b)]. [Nöldeke quotes a verse in a now rejected reading and two similar verses from the *Borzū-nāma* (see Hanaway 1989), attributed to ʿAṭāʾī and later than the *Šāh-nāma*.] Es ist nicht unwahrscheinlich, daß die beiden im 10. Jahrh. n. Chr. lebenden Shāhnāme-Dichter den hyperbolischen Ausdruck für die Menge der Pfeile schon in ihrer prosaischen Vorlage fanden, deren Quellen auf Schriften des 6. Jahrhunderts zurückgingen, und daß er eben auch schon in diesen vorkam. [...] Und so können wir ruhig annehmen, daß der Trachinier, der sie bei Herodot 7, 226 dem Spartaner gegenüber auf die ungeheure Menge der feindlichen Barbaren anwendet, sie nicht selbst erfunden, sondern, wie man das auch wohl immer angenommen hat, sie einem echt persisch renommierenden Perser nachgesprochen hat, der so das Alter derselben bezeugt.

The trail ends here, and this is more or less the extent of the discussion. However, T. Nöldeke's three passages from the *Šāh-nāma* can be increased to twenty-two. Before we examine these and the arguments for Nöldeke's idea,[4] consider the form of the Persian boast as recorded by Herodotus:

(6) *ἐπεὰν οἱ βάρβαροι ἀπίωσι* ΤΑ ΤΟΞΕΥΜΑΤΑ, <u>*τὸν ἥλιον*</u> *ὑπὸ τοῦ πλήθεος* ΤΩΝ ΟΙΣΤΩΝ **ἀποκρύπτουσι** *τοσοῦτο πλῆθος αὐτῶν εἶναι*

The vaunt is structured as a temporal clause + main clause + pleonasm, and the components of the image are ordered 'arrows' + 'sun' + 'hide'. The historian uses two words for 'arrows', the second of which is incorporated into a prepositional phrase

[4] I cannot address Meuli's—really his colleague Bloch's—proposal here. Meuli's eight *MBh.* passages can be increased to at least seventy-six, which show that the trope of arrows hiding the sun, with some lexical variation, appears to be formulaic. Merkelbach's (1975:203) characterization that the Sanskrit and Persian images "gehört also zur gemeinsamen indo-iranischen Tradition" is likely correct but also requires a full demonstration (cf. Skjærvø's [1998] comparison of Iranian Rostam and Indic Bhīṣma). In any event, it is not necessary to address the Indic data here.

modifying 'hide'. In addition to the semantic content of the image, these lexical, morphosyntactic, and stylistic aspects will be important to bear in mind going forward.

3 The *Šāh-nāma* of Ferdowsī

One of Nöldeke's sources for Persian verses comparable to the vaunt reported by Herodotus is the national epic of Iran, written in New Persian in the late tenth/early eleventh century CE. The *Šāh-nāma* of Abu'l-Qāsem Ferdowsī (940–1025 CE; see Khaleghi-Motlagh 1999 [2012]) tells the story of the country from its mythical beginnings to the generation before the poet's. It is massive, taking up eight volumes in Khaleghi-Motlagh's (1988–2008) critical edition (hereinafter, KM). The entire epic is composed in rhyming hemistichs or ***maṯnawī***, with each hemistich in ***motaqāreb moṯamman maḥḏūf*** meter /⏑ –́[1] – ⏑ –́[2] – ⏑ –́[3] – ⏑ –́[4] ^/ (in Hellenist terms, a bacchiac tetrameter catalectic).

Now, these basic facts might cast any comparison with Herodotus into serious doubt, even before we engage with the data. A yawning gap of nearly a millennium-and-a-half separates Herodotus' *Histories* and Ferdowsī's poem, and the terms for Ferdowsī's verseform betray Arabic origins. D. Fehling dismisses Ferdowsī as derivative of Greek sources (1989:111). However, other considerations allow us to proceed. Pace Fehling, some learned allusions to western classics do not damn the poet's ingenuity or reliance on his own native tradition. In a similar vein, while Persian verse is heavily indebted to Arabic poets and metricians for its forms and technical terminology (see Elwell-Sutton 1986 [2011]), Arabic influence beginning in the seventh century CE was not tantamount to a wholesale replacement of the native Persian system of versification (see Landau 2010). Most importantly, the language of Ferdowsī's New Persian is a direct descendant of the Old Persian that Xerxes spoke (see Skjærvø 2006 [2012]), and the ***Šāh-nāma*** shows traces of oral poetic tradition, with specific regard to formulaics, if not only in style then also in substance (see Davis 1996). The ***Šāh-nāma*** may thus be preserving features of Old Persian epic.[5]

Before looking at the verses themselves, some remarks on Ferdowsī's lexical choices are in order. ***Tīr*** is the basic word for 'arrows',[6] for which ***paykān*** 'arrow- (or spear-) head' and/or ***parr*** 'feather' can stand in synecdoche; Ferdowsī can also pleonastically use ***tīr*** with one or both of its syndecdoches. Lastly, metaphorical ***tīr*** + ***bār-*** 'rain' is robustly attested. In all ***tīr*** occurs nineteen times in this collection, and construction in prepositional phrases headed by ***ba*** (accompaniment/instrument/description) 3× and ***az*** 4×/***zi*** 9× (ablatival/genitival/instrumental relationships) are frequent. We can represent all these expressions in formulaic notation as ARROWS. Three terms denote 'sun': ***šēd*** and its metonyms ***āftāb*** 'sunshine' and ***ḵ***ʷ***ar-šēd*** 'sun-shine'. However,

[5] If Merkelbach is correct (see n. 4), an Indo-Iranian pedigree for the image would mitigate the lateness of the *Šāh-nāma*.

[6] Glosses after Steingass 1892, Hayyim 1934–6, and P.-A. Mumm, p.c.

arrows can also hide the stars, the sky, air, earth, and the world, either on its own or in combinations with other terms. We can unify these diverse entities under SPHERE, which captures the ball of fire, its radiation, the sphere over which it travels, the space between the sun and the earth, the earth itself, and the sum of these. Ferdowsī most exercises his craft in his varied expressions for obscuring. These involve not just covering, but also filling, resemblance to birds, darkness, the removal of light or color, clouds, night, and, most broadly, imperceptibility. These diverse expressions can be united under OBSCURE. From the relatively wide lexical variation of components of the image, it is difficult to see the trope's formulaic nature, though the "particular essential idea[s]," to use Parry's words (see n. 2), are underlyingly the same.

However, from closer inspection of the ordering of the members and their metrical contexts, we find subregularities that make the trope formulaic. Eight passages attest the formula with the components ordered ARROWS SPHERE OBSCURE (in the quoted passages below, expressions and translations for ARROWS appear in small capitals, SPHERE with underscore, and OBSCURE in bold face). In seven instances, ARROWS abuts a half-verse boundary, and in all eight the expressions for OBSCURE do. In the passages in (7), the formula is coextensive with half-verse b:[7]

(7) a. Kay-Ḵosrow: Forūd Son of Sīāvaḵš v. 1134b (KM III:95)
| ***BA TĪR** az jahān **raušanāʾī baburd*** #
"[Bahrām **d]immed** WITH HIS SHAFTS the brightness of the sky."
(WW III:101)

b. Ḵosrow Parvēz v. 427b (KM VIII:34)
| ***BA TĪR** az havā **raušanāʾī baburd!*** #
"[Bendwi] WITH HIS ARROWS **robbed**/ The air **of light**."
(WW VIII:220–1)

In (8), the formula takes up half-verse a:

(8) Kay-Ḵosrow: Great War v. 1651a (KM IV:276)
ZI TĪR** āsemān **šud ču parrān ʿuqāb |
"And heaven **was like an eagle's wing** WITH ARROWS." (WW IV:227)

The passages in (9) show ARROWS closing half-verse a and SPHERE OBSCURE constituting half-verse b:

[7] Persian text from Khaleghi-Motlagh 1988–2008 (KM), translations from Warner and Warner 1905–25 (hereinafter WW). A note on citing KM: Khaleghi-Motlagh subdivides the *Šāh-nāma* according to king and titles each story eponymously, but he does not number them, and verse numbering restarts with each story, making citation cumbersome. Where expediency dictates, I therefore cite verses by their story-internal numbers, with hemistichs labeled a or b, combined with the KM volume + page number in lieu of story titles. So "Kay-Ḵosrow: Forūd Son of Sīāvaḵš v.1134b (KM III:95)" in (7) can be shortened to "III:95.1134b."

(9) Kay-Ḵosrow: Kāmus of Kašan (KM III; WW III)

a. 130.402
. . . ***AZ . . . TĪR** | zamīn **šud ba kirdār-i daryā-yi qīr*** #
"What WITH . . . JAVELINS,/ The earth **became as 'twere a sea of pitch.**"
(p. 130)

b. 149.709
AZ . . . BĀRĀN-I TĪR** | **hamē** čašm-i ḵʷar-šēd **šud ḵīra ḵīr
"[the sun's] eye **was dazed**/ . . . BY THE RAIN OF ARROWS." (p. 149)

In (10), the formula takes up most of a whole verse:

(10) Kay-Ḵosrow: Kāmus of Kašan v. 2001 (KM III:227)
ki BĀRĀN-I Ō būd . . . TĪR** | jahān **šud ba kirdār-i daryā-yi qīr
"[A cloud h]ath risen RAINING SHAFTS . . . / And all the world **is like a sea of pitch**" (WW III:220)

The formula can straddle a verse boundary, across contiguous half-verses in (11) and with an intervening verse in (12):

(11) Kay-Ḵosrow: Battle of the Eleven Ruḵs vv. 1485b–1486a (KM IV:94)
| ***BABĀRĪD TĪR** . . . # jahān **čūn šab-i bahman az tēra mēǧ*** |
"ARROWS SHOWERED| . . . The world **was like a winter's night for murk**"
(WW IV:81)

(12) Kay-Ḵosrow: Great War vv. 1648b + 1650a (KM IV:276)
. . . ***BĀRĀN-I Ō TĪR** . . . + # havā **gašt čūn čādur-i nīl-gūn*** |
"[A cloud] RAINING SHAFTS . . . The air **was like a robe of indigo**"
(WW IV:227)

In two passages (13), ARROWS is coextensive with half-verse a, with OBSCURE preceding SPHERE and together comprising half-verse b:

(13) Kay-Ḵosrow: Kāmus of Kašan (KM III; WW III)

a. 121.267
***ZI PAYKĀN-I PŌLĀD U PARR-I ʿUQĀB** | **sipar kard** bar pēš-eš az āftāb*
"THE POINTS OF STEEL AND EAGLE-PLUMES **bedimmed**/ The mid-day sun" (p.124)

b. 227.2002
***ZI PAYKĀN-I PŌLĀD U PARR-I ʿUQĀB** | **siyah gašt** rukšān ruḵ-i āftāb*
"The glorious visage of the sun **grew dark**/ WITH EAGLES' PLUMES AND ARROW-HEADS OF STEEL." (p. 220)

In three passages, ARROWS follows SPHERE OBSCURE: a compact formulation verse-finally in (14a), taking up half-verse a in (14b), and distributed across verses in (14c):

(14) a. Kay-Kosrow: Kāmus of Kašan v. 2801b (KM III:279)
*...havā **pur** ZI TĪR #*
"air **is full** OF ARROWS" (WW III:265)

b. Balāš v. 93a (KM VII:38)
*# havā **dām-i kargas šud** AZ PARR-I TĪR |*
"FEATHERED SHAFTS/ **Made** air **all vultures' plumes**" (WW VII:177)

c. Kosrow Parvēz vv. 581b–582a (KM VIII:46)
*...az havā **raušanā'ī baburd!** # hamē TĪR BĀRID...*
"[he] **robbed** the air **of lustre** WITH HIS SHAFTS" (WW VIII:229)

In two others that are nearly identical (15), ARROWS follows OBSCURE SPHERE, both times comprising whole final half-verses:

(15) a. Kay-Kosrow: Great War v. 800b (KM IV:221)
*| **bapōšīd** rōy-i havā PARR-I TĪR #*
"air **was veiled** WITH FEATHERED SHAFTS." (WW IV:181)

b. Nušin-Ravān v. 934b (KM VII:161)
*| **bapōšīd** rōy-i havā-rā BA TĪR! #*
"He... **veiled**/ Air's face WITH SHAFTS." (WW VII:274)

Multipartite members of the formula need not be contiguous. Ferdowsī achieves synchysis in (16), where ARROWS and SPHERE interlock with members of OBSCURE:

(16) a. Goštāsp: Goštāsp against Arjāsp vv. 479a + 480a (KM V:121)
*# **bakardand yek** TĪR-BĀRĀN **naxust** | + # **bašud** āftāb az jahān **nāpadīd** |*
"**first they sent**/ A SHOWER OF ARROWS... Such that the sun's course **was invisible!**" (WW V:57)

b. Goštāsp: Rostam and Esfandīār v. 1126 (KM V:386)
*...**giriftand**... TĪR-I KADANG | **baburdand** az rōy-i K'ar-šēd **rang!** #*
"They took their... SHAFTS OF POPLAR WOOD;/ The sun's face **lost its lustre**" (WW V:229)

Two passages show the ordering SPHERE ARROWS, with members of OBSCURE surrounding SPHERE in (17a) and ARROWS in (17b):

(17) a. Kay-Kosrow: Great War v. 1315 (KM IV:254)
*# **tu guftē "barāmēkt** bā šēd **māh"** | ZI BĀRĪDAN-I TĪR...*
"FROM THE SHOWERS/ OF ARROWS... thou wouldst have said:—/ 'The sun and **moon contend**!'" (WW IV:209)

b. Hormozd Son of Nušin-Ravān v. 874b (KM VII:537)
*| sitāra **šud** AZ PARR U PAYKĀN **siyāh!** #*
"The stars **were dimmed** BY POINTED, FEATHERED SHAFTS."
(WW VIII:125)

A last set of passages exhibit repetition of SPHERE OBSCURE. Comparable to the passages in (7)–(8), we see in (18a) ARROWS SPHERE OBSCURE in one half-verse followed by another iteration of SPHERE OBSCURE in the next; like the passages in (15), ARROWS follows OBSCURE SPHERE, which is reversed then repeated twice, in (18b); not unlike (16), (18c) exhibits synchysis of multipartite ARROWS OBSCURE following SPHERE, with simpler reiteration of SPHERE OBSCURE:

(18) a. Kay-Kosrow: Kāmus of Kašan v. 1257 (KM III:181)
*# ZI PARR U ZI PAYKĀN havā **tēra gašt** | hamē āftāb **andarū kīra gašt** #*
"The air **was dark** WITH [PLUMES] AND [POINTS],/ The sun **became confounded**" (WW III:178)[8]

b. Goštāsp: Goštāsp against Arjāsp vv. 481 + 2a + 4a (KM V:121)
*# **bapōšida šud** čašma-yi āftāb | ZI PAYKĀN...*
*+ # **tu guftē** "jahān **abr dārad hamē** | + # havā zī jahān **būd šab-gūn šuda** |*
"The fountain of the sun **was garnitured**/ WITH JAVELIN-HEADS ... One would have said: 'The sky **is overcast**['...] all the air/ **Assumed the hue of night**" (WW V:57)

c. Kay-Kosrow: Great War v. 1930 (KM IV:294)
*# havā **pur** ZI PAYKĀN **šud** U PARR-I TĪR | zamīn **šud ba kirdār-i daryā-yi qīr** #*
"The air/ **Was full** OF [ARROWS' HEADS AND PLUMES];/ The world **was[ ]like [a] sea [of pitch]**." (WW IV:243)[9]

I summarize these orders, ignoring reiterations, as follows:

[8] WW translate Vullers' *tīr* as 'spears' for which KM has *parr* 'feathers'. For *paykān* 'arrow-/spearheads' WW have 'javelins'.

[9] WW's translation has "arrows, the earth of elephants... heaving like the dark blue" for Vullers' (III:1371 v. 1932) reading *tīr o zamīn pur o pīl | jehān... nīl*.

(19) a.
| ARROWS SPHERE **OBSCURE** # — 2× — (7a)–(b)
ARROWS SPHERE **OBSCURE** | — 2× — (8); (18a)
ARROWS | SPHERE **OBSCURE** # — 2× — (9a)–(b)
| ARROWS # SPHERE **OBSCURE** | — 1× — (11)
ARROWS + #SPHERE **OBSCURE** | — 1× — (12)
ARROWS | SPHERE **OBSCURE** # — 1× — (10)

b.
SPHERE **OBSCURE** ARROWS # — 1× — (14a)
SPHERE **OBSCURE** ARROWS | — 1× — (14b)
SPHERE **OBSCURE** # ARROWS — 1× — (14c)

c.
ARROWS | **OBSCURE** SPHERE # — 2× — (13a)–(b)

d.
| **OBSCURE** SPHERE ARROWS # — 2× — (15a)–(b)
OBSCURE SPHERE | ARROWS — 1× — (18b)

e.
OBSCURE SPHERE OBSCURE′ | ARROWS — 1× — (17a)
ARROWS + # OBSCURE SPHERE OBSCURE′| — 1× — (16a)
ARROWS | OBSCURE SPHERE OBSCURE # — 1× — (16b)
| SPHERE OBSCURE ARROWS OBSCURE′ # — 1× — (17b)
SPHERE OBSCURE ARROWS OBSCURE′ ARROWS′ — 1× — (18c)

With three components, the formula can be configured in six ways, but two are unattested: *SPHERE ARROWS OBSCURE and *OBSCURE ARROWS SPHERE. This gap suggests that SPHERE OBSCURE, in either order, coheres as a unit; in the passages with synchysis, two examples show components of OBSCURE interlocking with ARROWS SPHERE, and in the one example with ARROWS interlocking with OBSCURE, the first member of OBSCURE still lies adjacent to SPHERE. Of the attested orders, Ferdowsī favors ARROWS SPHERE OBSCURE (8×) over SPHERE OBSCURE ARROWS (3×), ARROWS OBSCURE SPHERE (2×), and OBSCURE SPHERE ARROWS (2×). As for their metrical environments, expressions for ARROWS abut verse boundaries twenty-four times: to the right of the half-verse boundary 4×, to its left 8×, to the right of verse-end 7×, to the left 5×, and co-extensive with the hemistich 4×; OBSCURE adjoins the half-verse break 13× (to its left 8×, to its right 5×) and verse-end 12× (to its left 10×, to its right 2×); articulations of SPHERE together account for fourteen instances at the half-verse boundary (to the left of one 1×, to the right 6×; to the left of verse-end 2×, to its right 5×). We can express these tendencies by the following scheme:

(20) [ARROWS // $\substack{|\\ \#}$] // [SPHERE // [OBSCURE // $\substack{|\\ \#}$]]

SPHERE and OBSCURE, preferably in this order though reversible, with OBSCURE adjacent to a half-verse boundary, be it medial or final, can together follow (or precede) ARROWS, which should itself abut either the medial or final break. This scheme can then be instantiated by words from an array of lexemes and constructions, the choices of which can be driven by the need to rhyme hemistichs.

4 Conclusion

In sum, numerous passages from the *Šāh-nāma* show that the image of arrows hiding the sun instantiates a more lexically varied formula ARROWS SPHERE OBSCURE, suggesting its antiquity. If New Persian descends from Old Persian, and if Ferdowsī was indebted to sources including the Persian oral tradition, then the boast in Herodotus (6) may have been drawn from now-lost Old Persian epic. If, as Nöldeke, we apply an overly strict lexical and formulaic filter, only (13a) and (18b) can be compared to (6) = (21):

(21) ARROWS SPHERE
ἐπεὰν οἱ βάρβαροι ἀπίωσι ΤΑ ΤΟΞΕΥΜΑΤΑ, *τὸν ἥλιον ὑπὸ τοῦ πλήθεος*

ARROWS′ OBSCURE
ΤΩΝ ΟΙΣΤΩΝ ***ἀποκρύπτουσι*** *τοσοῦτο πλῆθος αὐτῶν εἶναι*

If we limit the comparison to the main clause, the image instantiates the order *SPHERE ARROWS OBSCURE not found per se in the *Šāh-nāma*, though (17b) SPHERE OBSCURE ARROWS OBSCURE′ comes close, with ARROWS in an instrumental/ablatival construction. But, if we look at *τὰ τοξεύματα*, *τὸν ἥλιον*, and *ἀποκρύπτουσι*, since *τῶν ὀϊστῶν* really belongs in the OBSCURE expression, Herodotus' version conforms to the eight Persian passages in (7)–(12) with ARROWS SPHERE OBSCURE. The Persian passages with synchysis in (16)–(17) can be compared indirectly. Finally, the pleonasm in the Greek recalls the reiterated Persian passages in (18a).

If Ferdowsī can serve as a witness, it was their own epic tradition that the Persians were calling down on the Spartans, and with courage Dieneces wittily but unwittingly participates in it:

(22) OBSCURE SPHERE
εἰ ***ἀποκρυπτόντων*** *τῶν Μήδων τὸν ἥλιον*

OBSCURE′ SPHERE′
ὑπὸ σκιῇ *ἔσοιτο πρὸς αὐτοὺς ἡ μάχη* [*καὶ οὐκ ἐν ἡλίῳ*].

The protasis in effect provides the boast with a reiteration, since it paraphrases it, which can be compared to the Persian passages in (18b)–(c). However, the heart of

Dieneces' counter-boast is the very terse apodosis, and on this with ἔπος εἰπεῖν Herodotus shines the light of Homer.

Abbreviations

KM = Khaleghi-Motlagh, Djalal (ed.). 1988–2008. *Abu'l-Qasem Ferdowsi, "The Shahnameh" (Book of Kings).* New York: Bibliotheca Persica.

TLG = The *Thesaurus Linguae Graecae* Project. 2009. *Thesaurus Linguae Graecae.* Irvine: University of California, Irvine. http://www.tlg.uci.edu/

WW = Warner, Arthur George, and Edmond Warner (trans.). 1905–25. *The "Sháhnáma" of Firdausí.* London: Kegan Paul.

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Elision and Prosodic Hiatus between Monosyllabic Words in Plautus and Terence*

KANEHIRO NISHIMURA

1. In his edition of Plautus' *Aulularia*, Wagner (1876:68) refers to a general law, ascribed to Fleckeisen (1850–1:53),[1] concerning the prosody of this dramatist, and no doubt of Terence as well (though in a more restricted manner): "*Monosyllables terminating in a long vowel or* m *need not coalesce with a following short vowel*" (his italics).[2] Monosyllables may also undergo elision, even though this would lead to significant lexical erosion.[3] However, as shown by Wagner's "*need not*," when elision is "partially" avoided,[4] a monosyllable and a following *(h)V-* do not coalesce with each other but are separated by a so-called prosodic hiatus (with the foregoing monosyllable scanned as short),[5] as in Pl. *Am.* 450 *quŏ ăgis* and *Cas.* 225 *quŏm ămo*.[6] As seen from these examples, "*a ... short vowel*" in the law is normally taken as one that appears in a light syllable ("eine kurze Silbe" as stated in Fleckeisen 1850–1:50).[7] Although the

*I am deeply indebted to Wolfgang de Melo for his valuable suggestions. Special thanks also go to Benjamin Fortson, Dieter Gunkel, and Brent Vine for their useful comments. Naturally, all remaining errors are my own.

[1] Cf. Pelz 1930:1, who credits Bentley with this law.

[2] See also Corssen 1870:783–5. Word-final *-Vm*, as in *iam* 'now', is often interpreted as a nasalized and lengthened vowel (see Drexler 1967:17 n. 17; Allen 1978:30–1, 74; Gratwick 1993:251; and Nishimura 2010:172–3; but cf. Corssen 1870:789–91 and Fink 1969). We will return to the phonetics of *-m* below.

[3] See Questa 1967:91; Gratwick 1993:253, 275 s.v. *monosyllable*; and Hammond, Mack, and Moskalew 1997:40–1. Cf. Merrill 2002:xlv–vi.

[4] See Sturtevant and Kent 1915:136 ("semi-elision") and Gratwick 1993:254 ("half-elided").

[5] Cf. the "logical" and "metrical" hiatus occurring with speaker changes, semantic pauses, diaereses/caesuras, etc.; see, e.g., Corssen 1870:784–5, Pelz 1930:2, Drexler 1967:48, Questa 1967:87–90, Barsby 1999:298–9, and Deufert 2002:340–1.

[6] See Christenson 2000:63–4 and MacCary and Willcock 1976:216. For the number of cases of prosodic hiatus throughout the works of Plautus, see Deufert 2002:340 with n. 2.

[7] The short vowel following a monosyllable can be in a heavy (and unaccented) syllable (cf. Questa 1967:96) if it is guaranteed that the vowel undergoes iambic shortening to form a resolved long with the preceding vowel: e.g. Pl. *Cas.* 708 *sĭ ĕffĕxis* (in a canticum; see MacCary and Willcock 1976:216).

As for the possible effects of syntax, semantics, or metrical position on the selection between elision or prosodic hiatus, see Soubiran 1966:332–72 and 1995:20–8. The context or pragmatics of scenes can also be factors (see Fleckeisen 1850–1:50, Corssen 1870:784, Sturtevant and Kent 1915:135, and Gratwick and Lightley 1982). Cf. further Riggsby 1991:340–3 on possible implications about social status or personal style associated with either of the two processes.

phonetic details involved in both elision and prosodic hiatus are often disputed,[8] the relatively high frequency of the latter in monosyllables may be explained as follows: if a final long vowel (or also *-Vm* or a diphthong) stands before a short vowel in a light syllable, i.e. *(h)V.-* (. = syllable boundary), and if hiatus does not occur, elision may produce a problematic phonological complexity; it sacrifices the length of the final vowel by prioritizing the initial monomoraicity of the following word. This would involve cancellation of the bimoraicity of the final long vowel, which for monosyllables would have significant effects on lexical erosion.[9]

2. In this digital era, we can locate with relative ease every single junction between monosyllables and following short vowels in Latin texts so as to examine whether each case involves elision or prosodic hiatus. As is usual in pre-Classical drama, not a few cases remain ambiguous, because the meter allows a variety of foot structures to substitute for normative ones (such as iambic and trochaic feet), thus making both elision and prosodic hiatus possible.[10] While bearing this ambiguity in mind, we can still confirm the validity of the above-mentioned law on the basis of the texts themselves, where elision appears in some cases and prosodic hiatus in others. Wagner's hedge "*need not*" can therefore be justified in a principled way.

2.1. Yet an extensive survey of junctions between monosyllables and following short vowels also sheds light on another noticeable propensity if we focus on a particular case: if monosyllables ending in *-Vm* (e.g. *iam* and *tum*) are followed by other monosyllables of the shape *(h)VC* (e.g. *is* and *hic*), and if such *(h)VC* syllables are followed by an initial *(h)V-* and thus do not make position, the number of secure cases of elision of *-Vm* is relatively small; therefore, "*need not*" does not suffice in this case. Although ambiguity remains in a number of cases,[11] the creation of prosodic hiatus

[8] See, e.g., Sturtevant and Kent 1915:135–47; Brunner 1956; Hellegouarc'h 1964:242, 247, 252–3; Soubiran 1966:372–80; Drexler 1967:15–7 nn. 14–15; Allen 1978:78–82; Hammond, Mack, and Moskalew 1997:40; Barsby 1999:290–1; and Christenson 2002:58–9.

[9] In contrast, if a long vowel or a short vowel in a heavy syllable follows the final long vowel, elision may result in a single heavy syllable ("slurring", as noted in MacCary and Willcock 1976:215 and Willcock 1987:145; cf. Brunner 1956:189–90 with some elaboration), which allows for an additional span of time for adjusting the two input vocalisms. Further, this type of elision may cause no phonological loss of morae because the junction of the two morae in both parties never results in moraic addition, given the fact that there is no distinctive status for super-heavy syllables in the language.

Allen (1978:79), citing Brunner's research (1956) based on hexameters, states that there is no noticeable avoidance of final long vowels before heavy syllables. On the other hand, sequences such as a final long vowel followed by an initial short vowel in a light syllable are "comparatively rare" (Allen 1978:79), as is already mentioned by Sturtevant and Kent (1915:153–4); see also Platnauer 1951:75, 78, Hellegouarc'h 1964:248–9, Allen 1978:31 n. 1, Soubiran 1966:376, Riggsby 1991:329 n. 5, and Soubiran 1995:21.

[10] See Drexler 1967:46, Questa 1967:93–5, Soubiran 1995:26, Barsby 1999:299, and Shipp 2002:32; cf. Soubiran 1966:331, 346–72.

[11] The following is a list of 37 such cases: Pl. *Truc.* 153 (*cum ...*); Pl. *Cur.* 466 (*dum ...*); Pl. *Am.* 1056, *Men.* 155, *Mos.* 677, *Poen.* 425, *Rud.* 556, Ter. *Hec.* 126, 296, *Ph.* 628, *Hau.* 104, 799 (*iam ...*); Pl. *Am.* 938, *Aul.* 102, *St.* 462, Ter. *An.* 60, *Hec.* 567, 691, *Hau.* 457 (*nam ...*); Pl. *Epid.* 271, *Mos.* 221, *Ps.* 1240, *Rud.* 1189, *Trin.* 311, Ter. *An.* 163, 203, *Ph.* 371 (*quam ...*); Pl. *Mos.* 470, *Rud.* 497 (*quom ...*); Pl. *Capt.* 779, *Truc.* 937

is more common than elision, *pace* Drexler's remark (1967:47) that "... vor Monosyllaba ... läßt sich der Hiat nur selten feststellen." Examples center around sequences such as monosyllabic conjunctions or relative pronouns[12] + *(h)VC*-type conjunctions, pronouns, or prepositions (30 cases):[13]

Pl. *Mos.* 502 (ia^6) — defodit insepultum **clam** | [ibidem] **in** hisce aedibus
Pl. *Am.* 1137 (ia^6) — tu gravidam item fecisti, **cum** | **in** exercitum
Pl. *Epid.* 111 (tr^7) — iam istoc probior [es] meo quidem animo, **cum** | **in** amore temperes.
Pl. *Aul.* 621 (tr^7) — aurum, **dum** | **hic** est occupatus. sed si repperero, o Fides
Pl. *Rud.* 1100 (tr^7) — omnia istaéc ego facile patior, **dum** | **hic** hinc a me sentiat.
Ter. *An.* 825 (tr^7) — vidĕ quam iniquos sis prae studio: **dum** | **id** efficias quod lubet
Pl. *Am.* 742 (tr^7) — iterum **iam** | **hic** in me inclementer dicit, atque id sine malo.
Pl. *Cas.* 558 (tr^7) — **iam** | **hic** est lepide ludificatus. miseri ut festinant senes.
Pl. *Rud.* 1383 (tr^7) — **iam** | **ab** isto auferre haud ⟨potis⟩ sim, si istunc condemnavero.
Pl. *Bac.* 388 (tr^7) — **nam** | **ut** in Ephesum hinc abii—hoc factumst ferme abhinc biennium—
Pl. *Capt.* 580 (tr^7) — **nam** | **is** est servos ipse, neque praeter se umquam ei servos fuit.
Pl. *Cist.* 688 (an^4) — **nam** | **et** intus paveo et foris formido
Pl. *Cur.* 523 (ia^7) — **nam** | **et** operam et pecuniam benigne praebuisti.[14]
Pl. *Mil.* 111 (ia^6) — quam erŭs meus amabat; **nam** | **is** illius filiam
Pl. *Poen.* 926 (tr^7) — **nam** | **et** hoc docte consulendum, quod modo concreditumst
Pl. *Ps.* 284 (tr^7) — **nam** | **hic** id metuit, ne illam vendas ob simultatem suam.
Pl. *Ps.* 699 (tr^7) — **nam** | **et** amicum et benevolentem ducis. sed istic Pseudolus
Ter. *Ad.* 618 (tr^7) — **nam** | **ut** hinc forte ea ad obstetricem erat missa, ubi eam vidi, ilico
Pl. *Epid.* 71 (tr^7) — **quam** | **id** argentum, quod debetur pro illa, denumeraverit.
Pl. *Epid.* 307 (ia^6) — aeque feracem **quam** | **hic** est noster Periphanes:
Pl. *Men.* 393 (tr^7) — detulisti, **quam** | **ab** uxore tua surrupuisti. :: quid est?
Pl. *Ps.* 1018 (ia^6) — numquam edepol quemquam vidi, **quam** | **hic** est Simia;
Pl. *Ps.* 1121 (an^7) — neque quicquamst melius, **quam** | **ut** hoc pultem atque aliquem evocem hinc intus.
Pl. *St.* 343 (tr^7) — verum ex multis nequiorem nullum **quam** | **hic** est. :: quo modo?
Pl. *Bac.* 176 (ia^6) — Mnesilochi Pistoclerum, **quem** | **ad** epistulam
Pl. *Per.* 650 (tr^7) — **quom** | **et** ipsus prope perditust et benevolentis perdidit.
Ter. *Hau.* 802 (ia^6) — mage veri simile id esse, **quom** | **hic** illi dabit;
Pl. *As.* 731 (ia^7) — satĭs iam delusum censeo. nunc **rem** | **ut** est eloquamur.
Pl. *Mil.* 741 (tr^7) — nam hospes nullus **tam** | **in** amici hospitium devorti potest
Pl. *Rud.* 1147 (tr^7) — quae parentis **tam** | **in** angustum tuos locum compegeris.

On the other hand, there are relatively few occurrences of elision. A list of undisputed examples of elision is as follows (9 cases):[15]

Pl. *Bac.* 1191 (an^7) — age **i(am), id** ut ut ĕst, etsi est dedecori, patiar, facere inducam animum.
Pl. *Epid.* 14 (tr^7) — **n(am) ut** apud portum te conspexi, curriculo occepi sequi:
Pl. *Trin.* 340 (tr^7) — **n(am) et** illud quod dat perdit et illi prodit vitam ad miseriam.
Ter. *Hec.* 696 (ia^6) — quam ob rem abs te abiret? :: plane hic divinat: **n(am) id** est.
Ter. *Ad.* 602 (ia^8) — **n(am) et** illi iam relevabis animum, quae dolore ac miseria
Pl. *Mil.* 119 (ia^6) — priŭs perii **qu(am) ad** erum veni, quo ire occeperam.
Pl. *Truc.* 742 (tr^7) — bona istic caedent? mortuom hercle me **qu(am) ut** id patiar mavelim.
Pl. *Truc.* 19 (ia^6) — quo citius **r(em) ab** eo averrat cum pulvisculo.[16]
Pl. *Trin.* 827 (an^8) — nam pol placido te et clementi meo usque modo, ut volui, usŭs **s(um) in** alto.

We can intuitively see why there are fewer occurrences of elision. Elision causes an extreme condensing of monosyllables in *-Vm*, *(h)VC*-monosyllables, and following initial *(h)V-*'s, which may place too much strain on the plays' audience to perceive

(*rem* ...); Pl. *Mos.* 145, Ter. *Hau.* 983 (*sum* ...); Pl. *Truc.* 171 (*tam* ...); Pl. *Mer.* 552, *Poen.* 984, *Ps.* 857 (*tum* ...). Three others, Pl. *Capt.* 233 (*dum* ...), 280 (*cum* ...), and Ter. *Hec.* 543 (*nam* ...), may be added here, but textual and/or metrical uncertainty in these cases makes it difficult to judge. For some cases in the list one may infer either prosodic hiatus or elision based on syntactic, semantic, and/or metrical factors (see n. 7), as already observed by some scholars (see, e.g., Gratwick 1993:44, 254 and Soubiran 1995:24–8; cf. Barsby 1999:299 and Shipp 2002:32). One particular case will be referred to in n. 15.

[12] My survey includes *clam*, *cum*, *dum*, *iam*, *nam*, *quam*, *quem*, *quom*, *rem*, and *tam* (there is no prosodic hiatus for *sum* and *tum*).

[13] I tentatively include a few passages that involve emendation; the exclusion of such cases does not affect the following discussion so much. There are two other possible instances of prosodic hiatus, Pl. *Epid.* 540 (*quam* ...) and *Poen.* 1142 (*dum* ...); but due to textual/metrical uncertainty for the former and the enigmatic content of the latter, these are excluded from the list.

[14] Note that this case differs from others in that *et o-* forms a resolved long.

[15] Among the ambiguous cases listed in n. 11, Pl. *Trin.* 311 and *Truc.* 937 may point to elision rather than prosodic hiatus because prosodic hiatus would necessitate a proceleusmatic in scansion, which tends to be avoided in trochaic verse (see Soubiran 1995:61).

[16] For this line, while scansion with prosodic hiatus is theoretically possible, this must involve quite erosive elision of *eo* or overly complex slurring between this and the following initial vowel; see the discussion in §3 below on Pl. *Mer.* 915, Ter. *Eu.* 509, Ter. *Hau.* 432, Ter. *Ph.* 718, and Pl. *Cas.* 1002.

word boundaries correctly.[17] Elision in, e.g., Pl. ***Epid.*** 14 above would have produced a phonetic sequence perhaps like [nutapud . . .] for ***n(am) ut apud***. . . , which may have been somewhat perplexing. In what follows, I elaborate to some extent on this simple intuition.

2.2. We can begin by recalling Hayes's brief description (1995:180), inspired by Allen (1973:188–90), about the early stages of Latin as governed by a stress assignment rule based on bimoraic trochees (⏑ ⏑ = LL or – = H)[18] that are allotted from the word-initial to the word-end, i.e. from left to right. This direction is exactly the opposite of the traditional accent rule of Classical Latin, in which accent assignment proceeds regressively (i.e., the penult receives the accent if it is heavy, otherwise the antepenult hosts the accent). This stark contrast may be surprising to non-linguist Classicists; but it neatly accounts for both the pre-Classical and Classical Latin data. The underlying framework is lucidly explained by Parsons (1999:122–3). Based on left-to-right footing, forms like ***facilius*** are parsed not as fa(cĭlĭ)⟨us⟩ (as they would be with a right-to-left process) but rather as (făcĭ)li⟨us⟩ (⟨ ⟩ = extrametrical material). The only complete foot in the form is therefore assigned a trochaic stress as in (fáci)li⟨us⟩, which most likely corresponds to the exact accentuation of the form in pre-Classical Latin, as possibly seen from the podic ictus of iambo-trochaic verse that coincides with the initial syllable.[19]

To return to the phonetic sequence [nutapud . . .] assumed for Pl. ***Epid.*** 14: if it is counted as a single prosodic unit (more or less equivalent to a prosodic word) at least temporarily in the process of lexical identification, and if it is parsed from left to right in accordance with the accentual rule above, the result would be (nuta)(pud) . . . , the first foot of which ends up containing as many as three morphological elements, namely elided ***nam***, ***ut***, and the first vowel of ***apud***.[20] Such a heavily-loaded inner structure of the foot can be considered a reason for possible acoustic confusion.[21] Although such extreme complexity does not occur in all of the above cases, some sort of lexical opacity always presents itself.[22]

Therefore it can be said that prosodic hiatus serves as a convenient solution for

[17] Cf. the remark of Hellegouarc'h (1964:253, based on hexameter verse), who mentions possible "confusion" when elision occurs between monosyllables.

[18] L = Light and H = Heavy. Note that the term "trochee" here is used in a way that differs from its conventional use among Classicists, for whom it normally means – ⏑ . See Mester's theoretical analysis of Latin syncope (1994:37–43), with the premise that Latin is metrically based on bimoraic trochees.

[19] See Nishimura 2011:10–4 for more details, including the controversial issue of verse ictus (see also Nishimura 2014:162–3 n. 3, 168 n. 23) and the syncope of the type ***bálineum*** > ***balneum*** 'bath'.

[20] Note that many of the monosyllables, particularly conjunctions (such as ***cum***, ***dum***, and ***nam***), stand in clause-initial position (see also Soubiran 1995:25). This fact makes it likely that such words are counted as the leftmost elements in phonological feet.

[21] In this respect, polysyllabic words differ from monosyllables when elided, as briefly pointed out by Riggsby (1991:338–9, 342). That is, phonological erosion in the final syllable may not damage their lexical identity to a significant degree.

[22] The phonetic sequence [nutapud . . .] is postlexically resyllabified as something like [nu]$_{pwd}$ [tapud]$_{pwd}$ . . . (stated as prosodic words), in which the final consonant of ***ut*** is reaffiliated to the following ***apud*** because

avoiding such complexity and that this is part of the reason for its high frequency. Besides many cases of prosodic hiatus and some occurrences of elision, there are also a certain number of ambiguous verse lines, as mentioned above. But in view of what we have seen for the particular type of phonological sequence in question, a bias toward prosodic hiatus may also lurk behind such cases.

3. One may raise the question as to whether the same explanation can be applied to cases in which monosyllables in the first position of the sequence end in long vowels, such as ***mē*** and ***sī***.[23] Indeed, as seen from the following list, the number of cases that exemplify prosodic hiatus for ***sī***-type monosyllables is almost comparable to that for ***iam***-type monosyllables (29 cases):[24]

Pl. *Aul.* 8 (ia^{6})	defodit, venerans **me** ǀ **ut** id servarem sibi.
Pl. *Bac.* 686 (tr^{7})	**me** ǀ **id** aurum accepisse extemplo ab hospite Archidemide. :: em
Pl. *Capt.* 780 (ia^{8})	speroque **me** ǀ **ob** hunc nuntium aeternum adepturum cibum.
Pl. *Rud.* 1388 (tr^{7})	id ego continuo huic dabo adeo, **me** ǀ **ut** hic emittat manu.
Pl. *St.* 159 (ia^{6})	nam illa **me** ǀ **in** alvo menses gestavit decem
Ter. *Hau.* 115 (ia^{6})	putavit **me** ǀ **et** aetate et benevolentia
Ter. *Ad.* 111 (ia^{6})	pro Iuppiter! tu, homo, adigis **me** ǀ **ad** insaniam.
Pl. *Per.* 776a (an^{4})	ei qui invidet **mi** ǀ **et** ei qui hoc gaudet.
Pl. *Cas.* 385 (tr^{7})	quid tu id curas? :: quia enim metuo, **ne** ǀ **in** aqua summa natet.
Pl. *Men.* 789 (tr^{7})	quid ĭlle faciat, **ne** ǀ **id** observes, quo eat, quid rerum gerat.
Pl. *Capt.* 805 (tr^{7})	mira edepol sunt, **ni** ǀ **hic** in ventrem sumpsit confidentiam.
Pl. *Per.* 840 (tr^{8})	**ni** ǀ **id** effecit, ni ei male dixit, ni grato ingratus repertust.
Pl. *Mil.* 1047 (an^{7})	**qua** ǀ **ab** illarum? nam ita me occursant multae: meminisse haud possum.
Pl. *Bac.* 374 (tr^{7})	**quae** ǀ **ut** aspexi, me continuo contuli protinam in pedes.
Pl. *As.* 257 (tr^{7})	**qui** ǀ **ad** eri fraudationem callidum ingenium gerunt.
Pl. *Bac.* 584 (ia^{6})	<quid?> quae te mala crux agitat, **qui** ǀ **ad** istunc modum
Pl. *Trin.* 12 (ia^{6})	adulescens quidam est, **qui** ǀ **in** hisce habitat aedibus;
Ter. *Eun.* 546 (ia^{7})	is est an non est? ipsus est. quid hoc hominist? **qui** ǀ **hic** ornatust?

the ***u*** of ***ut*** is scanned as light (see additional details in Ryan 2013). Such breaking-up of monosyllables may also have an obscuring effect on the process of lexical identification.

[23] Cf. the caveat by Questa (1967:94): "ma talvolta ***mĕ ămās*** potrebbe celare un più antico ***mēd ămās***." See also Questa 1967:88, Lindsay 1922:227, and Deufert 2002:342.

[24] The following list results from an examination of ***dā***, ***mē***, ***mī***, ***nē***, ***nī***, ***quā***, ***quae***, ***quī***, ***quō***, ***rē***, ***sē***, ***sī***, ***tē***, and ***tū***, some of which provide no examples of elision and/or prosodic hiatus. From a syntactic and semantic standpoint, it is less likely that monosyllabic prepositions such as ***dē*** and ***prō*** precede monosyllabic *(h)VC*'s.

Pl. *Cist.* 89 (tr^{7}) **quo | is** homo insinuavit pacto se ad te? :: per Dionisia
Pl. *Rud.* 555 (ia^{6}) **quo | ab** arrabonem pro Palaestra acceperam
Pl. *Bac.* 964 (tr^{7}) blanditiis exemit et persuasit **se | ut** amitteret
Pl. *Mil.* 1247 (ia^{7}) tibi et Phaoni Lesbio, tam mulier **se | ut** amaret.
Pl. *As.* 98 (ia^{6}) non offuturum, **si | id** hodie effeceris.
Pl. *Cur.* 144 (an^{7}) cum argento ad me. :: magnum inceptas, **si | id** expectas quod nusquamst.
Pl. *Men.* 460 (tr^{7}) **si | id** ita esset, non ego hodie perdidissem prandium
Pl. *As.* 158 (tr^{7}) quam magĭs **te | in** altum capessis, tam aestus te in portum refert.
Pl. *Per.* 562 (tr^{7}) **te | in** exilium ire hinc oportet. :: quid iam? :: quia periurus es.
Pl. *Mil.* 428 (tr^{7}) et **tu | et** hic. :: non nos novisti? :: neutrum. :: metuo maxume
Pl. *Truc.* 791 (tr^{7}) iam tace. accepistin puerum **tu | ab** hac? :: accepi. :: tace.

But the frequency is relatively lower than that for *iam*-type monosyllables, since *sī*-type monosyllables show about twice as many cases of elision (19) as do *iam*-type ones:

Pl. *As.* 747 (ia^{6}) inter **m(e) et** amicam et lenam. leges pellege.
Pl. *Aul.* 584 (ia^{6}) Fides, novisti **m(e) et** ego te: cave sis tibi
Pl. *Aul.* 737 (tr^{7}) deŭs impulsor mihi fuit, is **m(e) ad** illam inlexit. :: quo modo?
Pl. *Epid.* 72 (tr^{7}) eu edepol res turbulentas. :: mitte **m(e) ut** eam nunciam.
Pl. *Mil.* 1006 (tr^{7}) tum haec celocula autem absentem subigit **m(e) ut** amem. :: hercle hanc quidem
Pl. *Poen.* 278 (tr^{7}) hanc equidem Venerem venerabor, **m(e) ut** amet posthac propitia.
Pl. *Rud.* 386 (ia^{7}) sed duce **m(e) ad** illam ubi est. :: i sane in Veneris fanum huc intro
Pl. *Per.* 461 (ia^{6}) quas tu attulisti **m(i) ab** ero meo usque e Persia.
Pl. *Ps.* 594–5 (an^{8}) hi loci sunt atque hae regiones quae **m(i) ab** ero sunt demonstratae
Pl. *Ps.* 1292 (cr^{2} + cr^{c}) quód féró, sí **qu(a) in** hóc spés sitást mihí.
Pl. *Cist.* 237 (tr^{7}) sed ego primum, tot **qu(i) ab** amica abesse potuerim dies
Pl. *Mil.* 131 (ia^{6}) dedĭ mercatori cuidam, **qu(i) ad** ĭllum deferat
Pl. *Trin.* 265 (an^{8}) procul abhibendust atque apstandust; nam **qu(i) in** amorem praecipitavit
Ter. *Ph.* 476 (ia^{8}) tum Phormio itidem in hac **r(e) ut** in aliis strenuom hominem praebuit.

Pl. *Mil.* 404 (ia^{7}) resipisces: **s(i) ad** erum haec res priŭs praevenerit, peribis pulchre.
Pl. *Trin.* 382 (tr^{7}) verum ego quando **t(e) et** amicitiam et gratiam in nostram domum
Pl. *Trin.* 1027 (tr^{7}) recipe **t(e) ad** erum. :: non fugitivost hic homo, commeminit domi.
Pl. *Capt.* 551 (tr^{7}) proin **t(u) ab** ĭstoc procul recedas. :: ultro istum a me. :: ain, verbero?
Pl. *Trin.* 986 (tr^{7}) quem tibi epistulas dedisse aiebas. :: eho, quaeso, an **t(u) is** es?

The list may be expanded by the following lines (5 cases):

Pl. *Mer.* 915 (tr^{7}) sed quin intro ducis **m(e) ad** eam, ut videam? :: paullisper mane.
Ter. *Eu.* 509 (ia^{6}) ita **m(e) ab** ea astute video labefactarier
Ter. *Hau.* 432 (ia^{6}) meŭs venit? :: dixi. :: eamus: duc **m(e) ad** eum, obsecro.
Ter. *Ph.* 718 (ia^{8}) rem ipsam putasti. :: duc **m(e) ad** eum ergo. :: non moror. :: ubi hoc egeris
Pl. *Cas.* 1002 (tr^{7}) **n(e) ut** eam amasso, sí ego umquam adeo posthac tale admisero

In these lines, the monosyllabic sequences with elision are followed by disyllabic pronouns (*ĕam*, *ĕa*, etc.), the second syllables of which are in turn elided by the following initial vowels; thus, e.g. Pl. *Mer.* 915 ...*m(e) ăd ĕ(am) ut*... True, pronouns of this type could be scanned as monosyllables by synizesis (thus *eâm*, *eâ*, etc.). If one follows this approach to scansion, one might posit prosodic hiatus between two monosyllables; at the same time, however, one would have to assume quite erosive elision of these pronouns, perhaps yielding a sequence like ...*mĕ | ăd (eam) ut*..., or some sort of complicated slurring, such as ...*mĕ | ăd eâm‿ut*..., which seems less likely. Thus the odds of elision become still greater (i.e. 19 + 5 = 24 cases).[25]

Note also that there are a number of cases (ca. 120) that are more or less ambiguous as to whether prosodic hiatus or elision is involved in the scansion (not listed here for reasons of space). Attempts in previous literature to specify either of these based on syntactic, semantic, and/or metrical factors have tended to add more cases of elision (cf. nn. 7 and 11). Therefore, the ratio of occurrences of prosodic hiatus would become even lower.

[25] Further, with regard to Ter. *An.* 818 (...**me ad** eam, quando...), Pl. *Mil.* 1275 (...**se ut** eas: tecum...), Pl. *Poen.* 971 (**si ad** eam rem...), Ter. *Ph.* 605 (**si ab** eo nil...), Ter. *Ad.* 989 (...**si ob** eam rem...), either elision of the first monosyllable or prosodic hiatus plus synizesis of the following pronoun is theoretically possible. However, since elision is a more common phenomenon, the first option would be the default (or likelier) scansion. These lines may thus increase the overall odds of elision.

Normally both *sī*-type and *iam*-type monosyllables are treated as forming a single category with regard to elision and prosodic hiatus (cf. Wagner 1876:69 and Pelz 1930:1). But our survey of the actual data seems to differentiate these two types from each other, at least to a certain extent. We should seek to identify the underlying factor that accounts for this distinction, if there is one.

The phonological sequence consisting of a *sī*-type word followed by *(h)V*.- reminds us of a famous phonological treatment in Latin, the so-called "*vocalis ante vocalem corripitur*" rule: e.g. *prŏavus* 'great-grandfather' (< **prō-avus*) and *dĕamat* 'loves utterly' (< **dē-amat*).[26] As suggested by Questa (1967:88), prosodic hiatus amounts to a word-external application of the rule, whereby two short vowels emerge as in Pl. *As.* 98 ... *sĭ* | *ĭd hodie* ... The first of these vowels, however, may be eliminated by elision in some other cases, as Soubiran (1995:20, 22) claims that short vowels are more easily elided than long vowels[27] due to their fragile monomoraicity as well as their inherent irregularity: there are no monosyllabic words that end in short vowels in Latin.[28] This means that the sequence consisting of *sī*-type word + *(h)V*.-, even if it partially avoids elision and results in prosodic hiatus, may still end up with full elision. In other words, whether directly or indirectly, *sī*-type words tend to be elided, which seems to speak to the apparently lower frequency of prosodic hiatus for this group of words.[29]

On the other hand, we can explain the infrequency of elision for *iam*-type monosyllables followed by *(h)V*.- by assuming that the prosodic hiatus that results from such cases does not consist of two short vowels in direct succession. That is, a denasalization of *-Vm* together with some sort of retained (or revived) phonetic presence of *-m* may separate the two short vowels, as Soubiran suggests (1995:25, 55 n. 16),[30] so as to impede elision. This process is exemplified by forms like *circumagō* 'drive around' and *circumeō* 'go around'. Although Sturtevant and Kent (1915:145–7, 155) resort to Quint. 9.4.40 in claiming that the final *-m* was regularly lost, Quintilian's expression "ut in eam [vocalem verbi sequentis] *transire* possit" (my emphasis) is not incompatible with the idea of denasalization of vowels and subsequent consonantal realization of nasals at least in some cases (see also Riggsby 1991:338 n. 37). Corssen (1870:790–1) already also dissociates *-Vm (h)V-* from *-V (h)V-* in general and contends that the final *-m* in the former still maintained some phonetic independence, though weak, based on the

[26]The range of the rule's application is wider than exemplified above: e.g. *fidĕī* < *fidei* 'trust' and *flĕō* < **flēō* 'I weep' (cf. infin. *flēre*), which are simplex words with long vowels that undergo the rule.

[27]Cf. Platnauer 1951:73 and Brunner 1956:191–2.

[28]See Kurylowicz 1949:37, Soubiran 1995:55, and Ryan 2013:166.

[29]Cf. Hellegouarc'h's research on elision in the hexameter (1964:242–8), which reveals that personal pronouns of a clitic nature are the most prone to this phonological process. The same seems to be true for our corpus (in view of the relative frequency of elision for *mē*, *mī*, *tē*, and *tū*). See also Riggsby 1991:338–40.

[30]For phonetic details on consonantal *-m*, cf. Fink 1969:451, Nyman 1977:115–9, and Riggsby 1991:331 n. 10, 338 n. 37.

same passage of Quintilian ("neque ... eximitur, sed obscuratur ...").[31] It thus follows that final *-m* plays a pivotal role in blocking two short vowels in prosodic hiatus from further elision.

4. What we have seen indicates that the dramatists' creativity was restrained by linguistic factors to some extent. Communicative vagueness tended to be avoided in the performance of their plays by means of prosodic hiatus, whereas certain phonological conditions tended to impose elision. It may be that the dramatists recognized such factors and sought to be in harmony with them in drafting their plays.

We have confined ourselves to examining monosyllables followed by monosyllables in Plautus and Terence. The results of this study may be useful for more extensive research on elision and prosodic hiatus that also deals with polysyllabic words[32] or with other authors, to determine whether the same sort of picture or a different one comes into view.

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[31]Note that Corssen goes so far as to exclude *-Vm (h)V-* from his discussion of prosodic hiatus, since it is not exactly "vocalium concursus" (Quint. 9.4.33).

[32]It can be predicted that monosyllables followed by polysyllabic words tend to host elision due to lesser degree of lexical condensation in phonological feet. This matches the description in Soubiran 1995:21 for, e.g., *t(e) hŏdĭe* and *m(e) ŏpĕre*.

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Replacing *locus* 'place' in Latin *locuplēs*

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1. A Latin adjective of the form *locuplēs, locuplēt-* meaning 'wealthy,[1] rich, sumptuous, ample'—applied to people as well as to buildings, cities, provinces, etc.—is directly or indirectly attested from what is essentially the beginning of the documented history of the language (Pl., Acc.+). Its sole derivative, a deadjectival *-ā-*factitive—whose objects are also both persons and places—is *locuplētāre* : *-āvī* : *-ātum* 'enrich', which is also found early.[2] Some examples of typical usages of the adjective and its derived verb (see *OLD* s.vv.) are:

(1) *Est Euboicus miles locuples, multo auro potens* (Pl. *Epid.* 153)
"There's a rich soldier from Euboea, with enough money to get whatever he wants."

(2) ... *cum in provincia tam locuplete ac referta non modo rem sed ne spem quidem ullam reliquam cuiquam feceris* (Cic. *Verr.* 3.48)
"... when in a province so wealthy and full to bursting you left everyone not only without property, but not even with any hope"

(3) *nil credo auguribus qui auris verbis divitant*
alienas, suas ut auro locupletent domos (Acc. *trag.* 169–70)
"I don't trust augurs a bit, who make the ears of others teem with words, so that they may make their own homes rich in gold."

(4) *nec interea locupletare amicos umquam suos destitit* (Cic. *Rab. Post.* 4)
"Nor all this time did he stop making his friends wealthy."

1.1. As an adjective descriptively showing a stem ending in *-ēt-* (no matter what its history), this word belongs to an extremely small morphological class, the only other members being *quiēs* 'at peace' (Naev.+), *inquiēs* 'restless' (Sall.+), and *mānsuēs* 'tame' (Pl.+):

[1] A special further development of 'wealthy' is 'reliable (as a surety or guarantor)'. So Cic. *Orat.* 172, etc., *Lex Rubria de Gallia Cisalpina* (*CIL* I^2 592) xxi.23 (49 BC). For more on this see §3.1.

[2] Whence *locuplētātor* (Eutr.+), *locuplētātiō* (Vulg.), *locuplētābilis* (gl.).

(5) *iamque eius mentem Fortuna fecerat quietem* (Naev. *BP* 47 W)
"and by now Fortune had made his mind quiet"

(6) *agitur enim et laceratur animi cupidine et noxarum metu, expers consili, inquies, haec atque illa temptans* ... (Sall. *Hist.* fr. I, 77.11 [*Or. Phil.*])
"In fact he is driven and tortured by his psychological cravings and by fear born of his crimes, not sure what to do, restless, trying this and that ... "

(7) *reddam ego te ex fera fame mansuetem, me specta modo.* (Pl. *As.* 145)
"I'll turn you from beast to tame by hunger, just watch me."

2. Etymological accounts of *locuplēt-* 'wealthy' are available.[3] More specifically, there have been two main suggestions. Neither is compelling, however, and both are in fact open to serious objections.

2.1. The first account operates with a proposed compound of the form **(st)loko-plēt-*, taken to mean 'replete with land(s)'. It has the normal Latin word for 'place' (**stloko-* > *locus*[4]) as first compound member (FCM) plus a second compound member (SCM) explained—though not typically in detail—as from *plē-* 'fill' (*pleō, plēre*, etc.). The end product was therefore 'replete with land(s)' and thus 'wealthy'.

2.1.1. A passive *-plēt-* 'filled'—of the right analysis, in any case—would be unexceptionable. That discussion, however, may be postponed (§7).

2.1.2. It is not needed here because more than one consideration raises doubts about *locu-* explained as reflecting **stloko-* (>*locus*) in a compound meaning 'replete with land(s)'.

2.1.2.1. First, such an account crucially requires that **stloko-* (>*locus*) could mean 'land(s)' of a landowner for purposes of this compound. But *locus* does not actually mean that in its attested uses.

a. The closest *locus* comes to this is to denote a geographical, topographical or inhabited 'place' as a masculine, and a 'region' as a neuter plural—these being merely way stations in the semantic range 'room in general, point in space, spot, position, location, site, abode', etc.

b. In fact, Latin speakers themselves even seem to have needed *locus* to be glossed '*ager*' to make the "explanation" of *locuplēs* as 'full of land' intelligible:

(8) *locupletes dicebant loci, id est agri, plenos* (Plin. *Nat. Hist.* 18.11)
"They called those who were replete with *locus*—i.e. with *ager*—*locupletes*."

In other words, *locus* simply does not mean *ager* 'piece of land'/*agri* 'lands' or *fundus* 'estate, farm' or *humus* 'earth, soil, ground, land' or *praedium* 'plot, estate' or *solum*

[3] See *LEW* 1 (with older literature that sometimes proposes slightly different analyses) and *DELL* s.v. *locuplēs*; de Vaan 2008 s.v. *-pleō*; Leumann 1977:275. See also Bader 1962:77 n. 117 and Lindner 2002:228 with still more references.

[4] See again *LEW* 1, *DELL* and de Vaan 2008 s.v. *locus*, as well as Sommer-Pfister 186.

'ground, land' or *terra* 'earth, land' or anything else that would have allowed a *(st)loko-plēt- to mean 'replete with land(s)'.

2.1.2.2. 'Full of, replete with land(s)' to designate the 'wealthy' is not plausible Latin either. There is, after all, apparently no attested instance of expressions like *agri/agrorum plenus or *agro/agris impletus/oppletus/repletus. Furthermore, *X* can apparently be said to be *plenus* 'full (of)' *Y* or (*im-*, *op-*, *re-*)*pletus* 'filled (with)' *Y* in Latin only when *X* can actually contain *Y*.[5]

2.1.2.3. Consequently, both the attested meanings of *locus* and the unlikelihood of 'full of land(s)' in the first place suggest that Latin authors[6] explaining *locuplēs* as 'loci plenus' *vel sim.* are folk-etymologizing.

2.2. The other frequently encountered explanation of *locuplēs* also makes it a compound of *(st)loko- (*locus*) and *-plēt- (: *-plēre*). This time, however, the all-important element is a FCM *locu-* in a meaning that the plural of the diminutive of *locus* can in fact have in attested Latin. More precisely, *loculus*, which means 'small space, cell, compartment, pigeon-hole', etc., denotes, in its plural *loculi*, a 'box divided into compartments', a 'portable case', and—crucially for present purposes—a 'cash box':

(9) *censeo . . . magnum condiscas hic in urbe cotidie lucrum assem semissem condere* ***in loculos.***
"I advise you to learn here in the city to stash your big penny-or-so profit **in the cash box** daily." (Varr. *RR* 3.7.11)

The idea, in other words, is that *locu-* in the compound *locu-plēt-* is a stand-in for *loculi* 'cash box' and that *locu-plēt-* meant 'filling the cash box' or perhaps 'full in the cash box'.

2.2.1. Here again (as in §2.1.1), a SCM *-plēt-* (of more than one acceptable analysis) in a supposed *(st)loko-plēt- 'filling the cash box' or 'full in the cash box' would be formally and functionally acceptable, but can be discussed later.

2.2.2. And the reason that it is once again not immediately necessary is that *(st)loko- representing eventual *loculi* 'cash box' is implausible.

a. The meaning 'cash box' obviously depends on 'compartments'. The diminutive *loculi* is therefore indispensable. And it is clearly doubtful enough to require some serious demonstrating that diminutive *loculi* can really be represented as FCM by non-diminutive *(st)loko-.

b. It may well be doubted whether cash boxes plus/minus the designation *loculi* really existed yet when a compound with a presumedly archaic morphological type of SCM (i.e. *-plēt-*), as in the handbook accounts, was formed.

[5] Cic. (*Prov.* 19) " . . . plenior inimicorum . . . " is the only exception offered by *OLD* (other than precisely the instances of exegetical "loci plenus" *et sim.* at issue here). But it is only an apparent one. It is perfectly possible to take *inimicorum* here as a substantivized neut. pl. and construe the phrase as " . . . fuller of enmities . . . "

[6] See *DELL* 365 for references to passages from Cicero, Ovid, Nonius Marcellus, Pliny the Elder.

2.3. The result of considering the explanations of *locuplēs* that are on the books, therefore, is that both of them suffer from the same problem—i.e. the semantic obstacles to identifying *stloko- > *locus* 'place' as the first element of the word.

3. To be sure, other constructs using known lexical and morphological material to make up a Lat. *locuplēt-*, still presumably a compound, that could plausibly mean 'wealthy' are imaginable.

3.1. For example, a proposal could be based entirely on the observation that *locuplēs* can qualify a guarantor as 'able to supply security; responsible, reliable':[7]

(10) *Samnitibus sponsores nos sumus rei satis locupletes in id quod nostrum est . . .* (Liv. 9.9)
"We are reliable enough guarantors of the matter for the Samnites, as far as concerns what is in our power . . . "

The basic idea here would be to imagine 'local grandee' as the original meaning, with 'wealthy' as a semantic generalization from that, and then to invoke the *$h_3$op-r- 'assets, money' of Hitt. *ḫāppar* 'payment' (: L. *op-* 'resources', etc.) for a possessive *stloko-h_3(o)pr-o- 'having assets in the locality' as the ultimate basis of *locuplēt-*. Two further assumptions would then be made, one phonological and one morphological. It would be supposed first that this *(st)lokōpro- 'having assets in the locality' was assimilated to *(st)lokōplo- and then that this, as an adnominal (in this case a compound) in *-o-*, was eligible for an independently supported type of descriptive expansion to *-ĕt-* (§7.3.2), which yielded *(st)lokōplĕt-, whence, in the end, *locuplēt-*.

There are, however, obvious and fatal objections to this scenario. For although it does at least presuppose the right meaning for *stloko- 'place, locale', the rest of the pragmatics and semantics of this proposition are pure assumptions. The phonology, moreover, is problematical both in that an *ō* that would not be shortened by any demonstrable Latin sound law would be expected in the second syllable and because *l . . . r* could hardly be expected to assimilate to *l . . . l* in Italic, where, on the contrary, *l . . . l* has a strong tendency to dissimilate to *l . . . r* or *r . . . l*.[8]

3.2. Alternatively, an attempt to procure a workable analysis by aligning a potential *-oplēt- in *(loc)uplēt-* with *opulent-* (*opulēns* [Sall. +]) and *opulento-* (*opulentus* [Pl. +]) 'rich, well supplied, sumptuous', etc. might, at first sight, seem worth undertaking. But no matter what is hypothesized as FCM, the formal problems that beset an association of *-oplēt- with *opolent(o)- are formidable enough to counsel decisively against this line of approach. For whether *opolent- itself reflects *$h_3$op-en-(e)nt- (: Hitt.

[7] See n. 1 above.

[8] See, e.g., Sommer-Pfister 1977:161–2, Leumann 1977:231 (Italic *l . . . ali-* > *l . . . āri-* in L. *cōnsulāris*, etc., Umb. *staθlāli- > *staflarem*; the reverse in Lat. *Palēs* → *Parīlia* 'festival of *Palēs*').

ḫappinant- wealthy') with dissimilation of **openent-* to **opelent-* (> **opolent-*),[9] or goes back rather to **op-ou̯ent-*, also dissimilated, but this time to **opolent-* directly,[10] it is difficult to see how the **-opl-(ēt-)* of *locuplēt-* could be the same thing as the **op(o)l-* of **opolent-* without cutting the *-lent-* of **opolent-* in half (if it reflects **-u̯ent-*) or without anything to condition a dissimilation of *-n-* to *-l-* (if **opolent-* reflects **openent-*). And this is to leave aside the extreme difficulty of identifying a credible source of what would be a *loc-* in such an analysis of *locuplēt-*.

4. The state of play at this point in the discussion can therefore be simply and quickly described. The first element of *locuplēt-* is unlikely to be *locus* 'place', no matter how this ostensible compound is further analyzed and interpreted. For the second element, the traditional *-plēt-* 'replete' (: *plē-* 'fill') remains the default analysis. The obvious new goal here is consequently a "*locus*-free" solution that does, on the other hand, allow for *-plēt-* 'replete'. And what would be ideal is a phonologically and morphologically non-problematical preform—ideally supported either by independent Latin facts or by comparative evidence (if not both)—that should have meant something like 'replete with property, goods, possessions, assets, wealth, abundance', etc.

5. It would seem, in fact, that an ideal solution of this kind to the problem of the origin and history of Lat. *locuplēs* 'wealthy' is actually available. More specifically, this solution can be arrived at by hypothesizing that an Indo-Iranian word for 'abundance' that has apparently never been given a convincing etymology is inherited from a PIE substantive that had much the same meaning. The item in question is the one represented, first and foremost, by Vedic *rāśí-*.

5.1. This is a masc. noun occurring four times in the RV in meanings like 'mass', 'heap', 'throng':

(11) *śikṣānaráḥ samithéṣu prahā́vān* ***vásvo rāśím*** *abhinetā́si* ***bhū́rim*** (4.20.8c–d)
"Den Männern gern nützend, in den Schlachten den Vorsprung gewinnend, bist du der, der zu **einer grossen Masse von Gut** führt." (Geldner)
"Doing your best for men in the clashes, hitting the jackpot, you are the guide to **an abundant heap of goods.**" (Jamison-Brereton)

(12) *rāyó dhā́rāsi āghr̥ṇe* ***váso rāśír*** *ajāśuva | dhī́vato-dhīvataḥ śákhā* || (6.55.3)
"Ein Strom des Reichtums bist du, **eine Fülle von Gut**, du ..., der mit Böcken statt Rossen fährt, der Freund eines jeden Liedersinnenden." (Geldner)
"You are a stream of wealth, glowing one, **a heap of goods**, you with goats as horses, the companion of every visionary." (Jamison-Brereton)

[9] Szemerényi 1954:275–81.
[10] Livingston 2004:73–82.

(13) *utá sma* ***rāśím*** *pári yāsi* ***gónām*** *índreṇa soma sarátham punānáḥ* (9.87.9 a–b)
"Und du holest **die Menge der Kühe** ein, mit Indra auf gleichem Wagen, O Soma, wann du dich läuterst." (Geldner)
"And now while being purified, Soma, you drive around **a throng of cows** in the same chariot with Indra" (Jamison-Brereton)

(14) *tríḥ ṣaṣṭís tvā marúto vāvr̥dhānā́* ***usrā́*** *iva* ***rāśáyo*** *yajñíyāsaḥ | úpa tvémaḥ kr̥dhí no bhāgadhéyam* (8.96.8 a–c)
" 'Zu dir (kommen) wir dreiundsechzig Marut wie **die Kuhherden** zunehmend, wir Opferwürdige nahen dir. Bestimme uns einen Anteil ...' " (Geldner)
"[Maruts:] We, the thrice sixty Maruts, having increased you as **ruddy throngs** [= **herds of cattle**] increase, are deserving of the sacrifice. We reverently approach you. Make a share for us." (Jamison-Brereton)

5.2. There is related material in Iranian—for example, Pashto *ryāša* (Ir. **rāsii̯ā*) 'heap'.[11] And the consequence of this, of course, is an *i*-stem substantive meaning 'great amount, great number' that goes back at least as far as an I-Ir. **rāći-* with some such meaning.

5.3. An etymology of *rāśí-*, etc. is, to be sure, on the books. The relevant root is said to be that of Ved. *raś-mí-, raś-mán-* 'rein, leash', etc. and *raś-anā́-* 'cord, rope, halter' (: I-Ir. **rać* 'bind').[12] Semantically, that is to say, the idea is evidently that the meanings 'heap, mass' and the like for I-Ir. **rāći-*developed from something like *'(bound) bundle'.[13]

5.4. This etymology is semantically unconvincing. The contexts unequivocally demand 'Masse'/'heap', 'Fülle'/'heap', 'Menge'/'throng' and 'Herde'/'throng, herd'. And the translations—including the epoch-making rendition into English by the honorand and her collaborator Joel Brereton[14]—nowhere use anything like 'bundle'. And rightly so.

Instead, the Rigvedic passages attesting *rāśí-* (§5.1) support no meaning more elaborate or semantically derivative than 'great number' (for count nouns, as in nos. 13 and 14) and 'great amount' (for mass nouns, as in nos. 11 and 12)—or simply 'abundance' as an all-purpose translation. It is to be specially emphasized in addition, however, that the 'abundance' conveyed by *rāśí-* is specifically of wealth. This is clearest for *rāśíḥ, rāśím* with *vásvaḥ* and *vásoḥ* 'abundance of goods' (nos. 11 and 12). But *rāśím ... gónām* 'a great number of cows' (no. 13) matches too—if cattle are wealth, as they certainly seem to be, judging from such expressions as *gómat* 'property in cattle' (13× RV) and,

[11] See *EWAia* 2.449.
[12] See *EWAia* 2.441.
[13] See, e.g., *KEWAi* 3.56, but also, again, *EWAia* 2.449.
[14] Jamison and Brereton 2014.

e.g., *gómat*... *híraṇyavat* 'wealth in cattle... wealth in gold' (paired at RV 1.30.17). And since the *usrā́ḥ*... *rāśáyaḥ* 'ruddy throngs' (no. 14) are also cattle, this is simply equivalent to *rāśáyaḥ*... *gónām* itself.

It should also be noted here, however, that as long as *rāśí-* does in fact denote 'abundance (of wealth)', the semantics of the ultimately underlying root will not matter for the purposes of this discussion.

5.5. As a final point regarding I-Ir. **rāći-*, it may be added that if this lexical item goes back to PIE, what can be back-projected from I-Ir. alone is a stem of the shape **(h*$_x$*)Lŏk̑i-*, **(h*$_x$*)Lēk̑i-* or **(h*$_x$*)Lo/eh*$_x$*k̑i-* (*L* = *r* or *l*) meaning 'great amount, great number, abundance'.

6. A PIE stem of one of these shapes, in turn, that meant more or less the same thing as its putative I-Ir. reflex **rāći-* 'abundance (of wealth)' can provide an immediate and unexceptionable explanation of Lat. *locuplēt-* 'wealthy'. The idea would be to specify the preform as **(h*$_x$*)lok̑i-* 'abundance' and allow for this stem to be inherited into Italic, appearing in Latin as the first member of the putative compound continued by the word at issue here: a pre-Latin passive verbal governing compound (VGC) **loki-plēt-* 'replete with abundance'.

6.1. Such a reconstruction, conveying the precise meaning of 'wealthy', as it does, and wholly consistent with the use of *locuplēt-* to characterize both people and places, would be semantically ideal.

6.2. Phonologically, this hypothesis seems entirely workable.

6.2.1. As generally said,[15] a *V̆* in a medial open syllable /__[+labial] originally became [ʉ] by "medial vowel weakening" in Latin. This reduction product, spelled both ⟨i⟩ and ⟨u⟩ early on, merged mostly with [i], but often with [u]:

> **ponti-faks* > *pontufex* (*pontifex* later) 'priest', **u̯iti-parā-* > *vituperā-* 'find fault', etc.
> **mone-mento-* > *monumentum* 'monument', **autem-ā-* > *autumāre* 'mention', etc.
> **op-kapā-* > *occupāre* 'grasp', **man(u)-habii̯ā-* > *manubiae* 'money from booty', etc.
> **optomo-* > *optumus* (*optimus*) 'best', **u̯elomos* > *volumus* 'we want', etc.

In addition, a back vowel in the initial syllable of the word favors, though is far from guaranteeing, [ʉ] > [u] as the ultimate outcome of such reduced vowels:

> *auceps, aucup-* 'bird-catcher' vs. *prīnceps, prīncip-* 'chief' (both < **-kap-*)
> *monumentum* 'monument' vs. *alimentum* 'nourishment' (both < **-e-mentom*)

6.2.2. In these standard examples, medial *ŭ* from *V̆*/__[+labial] occurs only where the original *V̆* was in an open syllable. This means that a *locuplēt-* from **lokiplēt-* should

[15] See Leumann 1977:87-90, Meiser 1998:68, Sommer-Pfister 82 and 88, Weiss 2011:118.

more specifically reflect a preform syllabified **-i.pl-* at reduction time. That requirement, however, poses no problem for the hypothesis being considered.

As a general matter of Latin phonology, it is probable anyway that both *-V̆klV-* and *-V̆plV-* themselves syllabified *-V.TlV-* for purposes of reduction.[16] Though space limitations do not permit that to be argued here in detail, it can be noted that nouns in *-ĭculum* (*cubiculum* 'bedroom', *rīdiculum* 'joke', etc.) show an open-syllable weakening product (*-ĭ-*) together with pre-anaptyxis *-kl-* in OL forms like *vehicla* (Pl. *Aul.* 167+). Nor is there counterevidence. No **-V̆klV-* or **-V̆plV-* ever shows a closed-syllable reduction outcome.

In addition, a morpheme boundary before a *TL* (obstruent + liquid) sequence conditioned *.TL* as the syllabification. This is clearly indicated by *reciprocus* 'moving back and forth' < **rekʷe.prokʷo-* = **rekʷe+prokʷo-*[17] vs. *scatebra* 'gush of water' < **-eb.rā-* and the like.

Applying this syllabificational hypothesis, with its implications for weakening outputs, to **loki-plēt-*, it would be clear that this preform, as not merely a **-V̆.plV-* case, but also a morphological **loki+plēt-* with a compound boundary before synchronically transparent *-plēt-* 'replete', should have been syllabified **loki.plēt-*.

This, in turn, would have been eligible for the [CV̆.] > [Cʉ.] treatment before the markedly labial and rounded sequence [pɫ] (i.e. *p* plus "*l pinguis*") and thus to have resulted in [ɫokʉ-]. The eventual merger of [ʉ] in this word with [u], as happened also in *vituperā-, monumentum, occupā-, volumus*, etc., as above, would naturally have been favored by the first-syllable back vowel of *locu-* as well.

7. If the point of the present exercise is to frame and evaluate an overall hypothesis in which Lat. *locuplēs* is to be explained as ultimately going back to a compound meaning 'replete with an abundance (of goods, possessions, wealth)', there remains the issue of choosing an analysis of SCM **-plēt-* with passive value 'filled, full' (: *-plēre* 'fill'). There are several theoretical possibilities to be weighed.

7.1. One of them is that of recognizing an unsuffixed root-nominal **-pleh*$_1$*-* that would have given Lat. *-plēs* as the nom. sg. of this compound, and then supposing that this *-plēs* served as the pivot form for the creation of a secondary *-plēt-* stem.

7.1.1. In favor of this, or at least consistent with it, are two considerations:

a. VGCs with root nominals as SCM are a well-established type, in which roots shaped *-EH* (with *-EH/-H-* ablaut in the paradigm of the VGC) have good representation. Illustrative examples from Vedic plus/minus Avestan are:

> *tamo-gā́-* 'coming out of the dark'; *rayi-dā́-, vasu-dā́-* (= YAv. *vaŋhu-δā-*) 'granting wealth'; *sarva-dhā́-* conferring wholeness'; *soma-pā́-* 'drinking the soma'; *rathe-ṣṭhā́-* 'standing in the chariot' (= YAv. *raθaē-štā-*), etc.

[16] **-V̆blV-*, more complicated, cannot be treated here. **-V̆glV-*, less complicated, need not be. Neither is directly relevant to **-V̆plV-*.

[17] See de Vaan 2008 s.v. *re-, red-* with the reference to Dunkel 1979.

—and most especially for present purposes

RV *carṣaṇi-prā́-* 'filling the territories', *ratha-prā́-* 'filling the chariot' (and others), with *-prā́-* < **-pleh$_1$-*

b. Furthermore, SCM nominals in VGCs do in general show descriptive passive value in addition to active:[18]

RV *nīthá-* 'leading, guidance' : *su-nīthá-* 'leading well' (1.35.7+) vs. 'well led' (8.46.4+), *su-śrótu-* 'hearing gladly' (1.122.6) vs. *su-mántu-* 'good to contemplate' (10.12.6+)
Gk. βλάβος 'harm' : ἀβλαβής 'harmless' (A.+) vs. 'unharmed' (Sa.+)

And this does not fail to apply to SCM root nominals in particular:

RV *hiraṇya-vī́-* 'wound with gold' (8.65.10), *vi-ṣṭír-* 'spread apart' (1.140.7), *prātar-yúj-* 'yoking early' (1.22.1) vs. 'yoked early' (10.41.2), Gk. ἄ-ζυξ 'unyoked' (E., Bacch., Eup.+)

—including those of the root shape in question here):

(*)*indra-pā́-* → *indrapā́-tama-* (9.99.3) 'most/best drunk by Indra'[19]

7.1.2. In the end, however, this is not a satisfactory analysis of Lat. *locuplēs*. For it would encounter at least three obstacles.

7.1.2.1. Latin has no convincing examples of other VGCs with an unextended root nominal from an *-EH* root as SCM. This is significant because it cannot be assumed by default that that type—though not rare in I-Ir.—should be expected in any other given branch of the family. It is to be noted in a general way, for example, that the Vedic SCM *-jñā́-* corresponds not to Gk. *-γνω-, but to -γνώτ-,[20] whatever the correct analysis of that may be:

Ved. *ṛta-jñā́-* 'knowing the truth' vs. Gk. ἀ-γνώτ- 'unknown' (Hom.+), 'unknowing' (S.+)

More particularly, however, it may be observed that the Latin correspondent of

[18] See Wackernagel 1905:175–6 and Scarlata 1999:737–9.

[19] Such at least would be the unforced analysis. An alternative is available, but at the cost of additional assumptions (for which see Scarlata 1999:739).

[20] Greek may, however, have inherited a **-stā-* (< **-steh$_2$-*) corresponding to Vedic *-sthā́-* and Av. *-stā-*, as in §7.1.1a above. See Leukart 1994:157–60.

a compound of the Vedic *sarva-dhā́-*, *tamo-gā́-*, *soma-pā́-* type (§7.1.1a) always shows one or more alternative SCM morphologies:

Ved. *-dhā́-* vs. L. *-do-* < **-d^{h}h$_1$-o-* (e.g. *algidus* 'cold' < **h$_2$(e)lgi-d^{h}h$_1$-o-* 'chilling')[21]
Ved. *-sthā́-* vs. L. *-sto-* < **-sth$_2$-o-* (cf. *praestō* 'ready') and *-stes, -stit-*[22] (e.g. *praestes* 'guardian')
Ved. *-jñā́-* vs. L. *ignōtus* 'ignorant' (Naev.+), 'unknown' (Pl.+)

7.1.2.2. A nom. sg. **-plēs* as the hypothetical pivot for the shift of a **-plē-* to a *-plēt-* stem cannot be taken for granted, since it is not clear at what stage a nom. **-plēs* would have been ambiguous. If **-ēss* < **-ēts* lasted as long as *-ess* < **-ets*,[23] a switch from **-plē-* to *-plēt-* as the synchronic analysis of the stem would be too late to be plausible.

7.1.2.3. A second drawback to a reconstructed **-pleh$_1$-* is that although actual adnominals/adjectives in *-ēt-* would be crucial as models for reanalyzing an *-ē-* stem nom. **-plēs* as an **-ēt*-stem nominative, Latin adnominal *-ēt*-stems (unlike *-ĕt*-stems) are rare, secondary, and relatively recent.

a. As indicated at the outset (§1.2), the relevant items amount to only three: *quiēs* 'at peace' (Naev.+), *inquiēs* 'restless' (Sall.+), and *mānsuēs* 'tame' (Pl.+).

b. What is notably suspect here, of course, is that two of these items—*quiēs* 'at peace' and *inquiēs* 'restless'—are antonyms, while the third—*mānsuēs* 'tame'—is almost a synonym of the first. This all but demands an integrated or even simultaneous explanation of all three *via* some development(s) within this tiny and semantically very restricted group.

c. Such an explanation can in fact be devised. It would start with the observation that one of the three members of this set—namely *quiēs, quiēt-* 'tranquil'—looks, on the surface, like a rare and odd adjectival usage of the very frequent and familiar noun *quiēs, quiēt-* 'tranquility', which has the same stem. And since this suggests, all things being equal, that adjectival *quiēs, quiēt-* is somehow secondary, it can provide a way of accounting for all three *-ēt-* adjectives in a coherent set of four hypothesized developments:

(1) Step one would be the formation of *inquiēs* 'restless' (though attested later [Sall.] than the others[24]) as a privative *bahuvrīhi* to *quiēs* 'tranquility', with the expectable meaning 'without tranquility, restless'.

(2) This *inquiēs* 'restless' was then reanalyzed as a determinative privative of the frequent type *indignus* (Pl.+) 'undeserving' (: *dignus* 'worthy'), *īnfēlīx*

[21] See Balles 2003:21–6, Hackstein 2002:16–7.

[22] On this type see §7.3.2b below.

[23] Sommer-Pfister 203–4, Weiss 2011:170.

[24] But note that synonymous *inquiētus* (plus *inquiētāre, inquiētūdō*) is markedly late as well (Hor., Liv.+).

(Enn., Pl. +) 'unfortunate' (: *fēlix* 'fortunate'), *impotēns* (Ter. +) 'powerless' (: *potēns* 'powerful'), etc.

(3) To *inquiēs* 'restless', once reanalyzed as a determinative privative with adjectival *quiēs*, was back-formed the actual simplex *quiēs* 'at peace'.

(4) Finally, the analogical proportion *quiēscere* 'calm down' : *quiētus* 'tranquil' : *quiēs* 'tranquil' = *mānsuēscere* 'become tame' : *mānsuētus* 'tame' : *X* produced *mānsuēs* 'tame'.

d. This account of *quiēs* 'at peace', *inquiēs* 'restless' and *mānsuēs* 'tame' is relevant in two ways to the analysis and history of *locuplēs* 'wealthy'. On the one hand, it underlines the minuteness of the category—namely *-ēt-* adjectives—to which *locuplēs* belongs. At the same time, however, it isolates *locuplēs* even within that class, since it stands apart semantically from the other three of the group. This is something to which the discussion will obviously have to return (§7.4).

e. In the end, at any rate, it is difficult to point to any actual forms that could have supported an early reanalysis of a putative *ē*-stem nom. *-plēs* as *-plē(t)s*. Alternatives are therefore welcome.

7.2. One such would be to assume a VGC again, but with SCM of the *t*-extended root noun type. This amounts, more specifically, to invoking the familiar inherited morphology seen in:

Ved. *viśva-jí-t-* 'conquering all', *deva-stú-t-* 'praising the gods', *jyotiṣ-kŕ̥-t-* 'creating light'[25]

Av. *aṣ̌əm-stū-t-* 'praising rightness', *aš-bərə-t-* 'bringing much'[26]

Hom. *περι-κτί-τ(η)-* 'neighbor(ing)' (: Ved. *pari-kṣí-t-*),[27] and therefore also (at least as a type) Ba. + *μηλο-θύ-τ(ᾱ)-* 'sacrificing sheep', Hom. *πυλ-άρ-τ(η)-* 'gate-fastener'

Notably for present purposes, examples of this type are also found in Latin:[28]

com-i-t- (Pl. +) 'companion', *ped-i-t-* (Cato +) 'foot-soldier', possibly *trā-mi-t-* (Pl. +) 'path, course' (: *meāre* 'travel' < _*h$_2$mei̯-_), *aus-cult(ā)-* (Pl. +) 'hear' (< _*h$_2$aus-ḱlu-t-_ 'ear-hearing [?], listening')

7.2.1. That VGCs with SCMs of this exact type can have passive value (cf.

[25] RV examples collected at Scarlata 1999:732.

[26] Duchesne-Guillemin 1936:61–2. A collection and discussion of all the Avestan examples of this type at Kellens 1974:114–44.

[27] Leukart 1994:47, 66–7, 134, 269–87.

[28] Leumann 1977:393, Weiss 2011:303.

§7.1.1b)[29] is demonstrated by such cases as RV *dīrgha-śrú-t-* 'heard from afar', ŚB *manaś-cí-t-* 'perceived by the mind'. And the earliest Greek instances of a series of these compounds that are at least generally reconstructed with SCMs of the shape _*-CR̥H-t-_ are in fact more often passive than not:

Hom. *ἐπι-βλή-τ-* 'bolt (thrust into a socket)', *προ-βλήτ-* 'thrown forward, projecting' as if < _*-g^{w}l̥h$_1$-t-_; *ἀ-δμή-τ-* 'unsubdued', *νεο-δμή-τ-* 'newly tamed' as if < _*-dm̥h$_2$-t-_; *ἀ-γνώ-τ-* 'unknown' (act. only later: S., Xen.), at least potentially as if < _*-ĝn̥h$_3$-t-_

7.2.2. Consequently, a compound of the shape _*(h$_x$)loḱi-pl̥h$_1$-t-_ 'filled, replete with abundance' could be considered as the preform of *locuplēt-*, as far as we have seen so far. It would only be necessary to assume in addition (1) that _*-pl̥h$_1$-t-_ nominalizes a passive ('filled [with]') or middle ('[having] filled up [with]') value here and (2) that the _*-plāt-_ which would have been the regular reflex of _*-pl̥h$_1$-t-_ was redone as *-plēt-* in assimilation to *-plēre, -plētum* 'fill', just as happened in the familiar case of *plēnus* for _*plānus_ < _*pl̥h$_1$-no-_ (: Ved. *pūrṇá-*, OIr. *lán*, etc.)

7.2.3. As is also well known, however, *t*-extended SCMs of the type now under consideration are constrained by the shape of the root from which they are derived. A conspicuous and potentially significant part of the picture, moreover, is that the constraints seem to vary from language to language.

a. In I-Ir. almost all examples are *-C(C)i-t-*, *-C(C)u-t-* or *-C(C)r̥-t-* (as above in §7.2). There are a few cases of apparent *-C(C)N̥-t-* (like AV *adhva-gá-t-* 'traveler'), but these are rare and secondary.[30]

b. Greek matches I-Ir. with *-C(C)i-t-* and *-C(C)u-t-*, *-C(C)r̥-t-* (§7.2). Beyond that, *-C(C)N̥-t-* is often supposed, at least, to be exemplified by Hom. *ὀδυνή-φατ-* (_*-g^{wh}n̥-t-_) 'pain-killing' and *πρό-βατ-* (_*-g^{w}m̥-t-_) 'sheep'.[31] It should obviously not be ignored, however, that the SCMs in _*-CR̥H-t-_ that are standardly assumed for Greek (§7.2.1) really have no match elsewhere.[32]

c. In Latin itself, *-C(C)i-t-* and *-C(C)u-t-* matching Indo-Iranian and Greek do put in an appearance (§7.2). In addition, indirect evidence of *-C(C)r̥-t-* may possibly be supplied by *cohors, -hort-* (1) if the semantic history of this word is something like an original *nomen actionis* or *rei actae* meaning *'(a) comprision' that developed to 'an enclosure' on the one hand and 'a contingent (of soldiers)' on the other, and (2) if it ultimately reflects a compound with second member _*-g^{h}r̥-t-_ (root of *hortus* 'garden'

[29] See Wackernagel 1905:175-6, Debrunner 1954:7–8, Scarlata 1999:737–9.

[30] Debrunner 1954:41–3.

[31] Risch 1974:196.

[32] Roots putatively making SCM _*-CR̥H-t-_ consistently choose an alternative in I-Ir.: _*-CR(E)H-_ (§7.1.1a) or _*-CR(H)-o-_ (RV *tuvi-gr-á-* 'swallowing mightily' < _*-g^{w}r(h$_3$)-o-_, etc. [§7.3b]) or _*-CoR(H)o-_ (Av. *fra-cara-* 'going forth' < _*-k^{w}ol(h$_1$)-o-_, etc.). They sometimes do so even in Greek (*νεογνός* 'baby' < _*-ĝn[h$_1$]-ó-_ and others [cf. §7.3.1a]).

< *'enclosure', OIr. _gort_ 'field', Hom. _χόρτος_ 'enclosure, court' < _*g̑^{h}or-to-_) rather than _*-g̑^{h}r̥-ti-_.

On the other hand, _-C(C)N̥-t-_ is not guaranteed by _recēns, recent-_ 'new', which could perfectly well continue a proximate _*-ken-ti-_ (with either a zero-grade _*-kn̥-ti-_ or an _e_-grade _*ken-ti-_ matched by that of OIr. _cét_ 'first', MW _cynt_ 'before' < _*ken-to-_). Nor is a SCM _*-CR̥H-t-_ especially likely to be reflected by _prae-gnās, -gnāt-_ (Naev. +) 'pregnant' (as if < _*-g̑n̥h_$_1$_-t-_).[33] Excellent semantics can be obtained by supposing a possessive compound _*prai-gnāti-_ 'with birth in front (of her)',[34] to which may be compared (as an "_ἔνθεος_" compound with the same FCM) _prae-cipit-_ 'with head in front (of oneself), head-first'. The putative _*-sth_$_2$_-t-_ of _antistes, -stit-_ 'priest' _et sim._ will be addressed below (§7.3.2b).[35]

7.2.4. The conclusion regarding this approach must therefore be that the absence of a SCM type _*-CR̥H-t-_ in Latin obviously makes _*-pl̥h_$_1$_-t-_ > _*-plāt-_ >> _-plēt-_ (§7.2.1) unsatisfactory for _(locu)-plēt-_.

7.3. Another analysis of _-plēt-_ can be had by invoking an independently supportable combination of two known stem morphologies.

7.3.1. The first of them is the VGC SCM type _-Root(zero)-o-_.[36]

a. This occurs in a number of branches of the family:

Ved. _gav-iṣ-á-_ wishing for cattle', _á-kr-a-_ 'inactive', _go-ghn-á-_ 'killing cattle', _valam-ruj-á-_ 'breaking open the hollows', etc.
Av. _amaē-ni-γn-a-_ 'striking down in an onslaught'
Gk. (τὰ) _ἔπι-πλα_ 'movable goods' (_*-k^{w}l[h_$_1$_]-o-_), _λίηφος· δεινός_, i.e. 'prodigious'[37] (_*-b^h[u̯h_$_x$_]-o-_), _νεογνός_ 'baby' (_*-g̑n[h_$_1$_]-ó-_)
Lat. _prīvignus_ 'step-son', _bignae_ 'twins', _benignus_ 'good-natured' (_*-g̑n[h_$_1$_]-o-_), _probus_ 'upright', _superbus_ 'haughty' (_*-b^h[u̯h_$_x$_]-o-_), _pervicus_ 'persistent' (_*-u̯ik-o-_ [: _vincō_])

b. SCMs of this form are particularly commonly made from _-EH_ roots:

Ved. _rayi-dá-_ 'granting riches' (_*-dh_$_3$_-o-_), _madhu-dhá-_ 'bestowing _madhu_' (_*-d^{h}h_$_1$_-o-_), _go-pá-_ 'protecting cattle' (_*-ph_$_2$_-o-_), _madhu-pá-_ 'drinking _madhu_' (_*-ph_$_3$_-o-_), _kāma-prá-_ 'fulfilling desires' (_*-pl[h_$_1$_]-o-_), _rathe-ṣṭhá-_ 'standing in the chariot' (_*-sth_$_2$_-o-_), etc.

[33] Nussbaum (1999:396) is too ready to accept _*-g̑n̥h_$_1$_-t-_ as a viable reconstruction.

[34] So Schwyzer 1929:10.

[35] On _sacerdōs, -dōt-_, which may easily be analyzed not as a genuine _t_-extended SCM of a VGC, but rather, as one possibility among others, as a _bahuvrihi_ that happens to have a simplex _t_-stem as its SCM, see Nussbaum 1999:397–8 with further references (n. 105), to which add Strunk 1994.

[36] Wackernagel 1905:174, Debrunner 1954:69–81 (examples mixed in among simplex _R(zero)-o-_ cases), Duchesne-Guillemin 1936:22 and 66, Schwyzer 1939:449, Leumann 1977:394–5, Weiss 2011:272.

[37] For the FCM cf. _λίαν/λίην_ (Hom. +) 'exceedingly, overmuch'.

Gk. _ἄργυφος_ 'bright-looking' (_*-b^{h}h_$_2$_-o-_),[38] _ἀγαθός_ 'good (of kind)' (_*m̥g̑h_$_2$_-d^{h}h_$_1$_-o-_ 'doing great things, doing much'),[39] _λοῖσθος_ 'at the end, bringing up the rear' (PGk. _*loihi-st^{h}o-_; cf. Gmc. compar. _*lais-iz-_ 'less' [OFr. _lēs_], superl. _*laiz-ista-_ 'least' [OE (Kent.) _lǣresta_, OFr. _lērest_],[40] implying a positive adjective _*laisa-_)
Lat. _praestō_ 'ready' (_*-sth_$_2$_-o-_), suffixal _-idus_—e.g. _gelidus_ 'cold' (_*geli-d^{h}h_$_1$_-o-_ 'chilling'; cf. §7.1.2.1)

c. Descriptive passive value for the type can be illustrated by a number of examples:

Ved. _an-ava-bhr-á-_ 'not to be carried off', _pari-mś-á-_ 'share' (: _naś_ 'reach, attain')
Gk. _ὕπαφρος_ 'cast down' (_*-b^{h}r-o-_),[41] _μεσόδμη_ 'tie-beam' < *'built between' (_*-dm-o-_)
Lat. _probrum_ 'reproach' (_*pro-b^{h}r-o-_ 'objected; objection')

7.3.2. The second nominal derivational type relevant to the account of _locuplēt-_ now under discussion is a semantically endocentric _-ĕ̄t-_ typically used with adjectival—or more generally adnominal—bases: adnominal _-o-_ stem → substantivizing _-ĕ̄t-_ derivative (frequently >> adnominal again as a "weak adjective").[42]

a. Examples of such derivatives from simplex adnominals include:

Gk. _ἀργός_ 'shining' → _ἀργής, ἀργέτ-_ 'id.'
γυμνός 'unclothed' → _γυμνής, γυμνήτ-_ 'light-armed foot-soldier'
Ital. (_*di̯i̯eu̯o-_ >) _*dīu̯o-_ 'brilliant' (L. _dīum_ 'daylit sky', cf. O. **Diíviiai**) → _*dīu̯et-_ > L. _dīves, dīvit-_ 'rich'
PIE _*steipo-_ 'rigid' (Gmc. _*steifa-_ 'stiff' [OE, MHG _stīf_]) → _*steipe-t-_ (L. _stīpes, stīpit-_ 'stick, stake')
PIE _*h_$_1$_u̯og^{wh}ó-_ 'vowing' (: L. _vovēre_, etc.) → _*h_$_1$_u̯og^{wh}ĕ̄t-_ > Ved. _vāghát-_ 'priest'

b. From adnominal compounds some illustrative cases are:[43]

PIE _*-sth_$_2$_-o-_ (Ved. _prati-ṣṭhá-_ 'resistant', Lat. _praestō_, etc.) → _*-sth_$_2$_ĕ̄t-_ (Av. _haŋ^{v}harə-stāt-_ 'staying in hiding', Lat. _anti-stes, -stit-_ 'priest')
PIE _*-k^{w}ol(h_$_1$_)-o-_ (_ἀμφίπολος_ 'busy', Lat. _anculus_ 'servant', Av. _fra-cara-_ 'going forth') → _*-k^{w}ol(h_$_1$_)ĕ̄t-_ (Av. _fra-carāt-_ 'going forth', cf. _rauuas-carāt-_ 'roaming the land')

[38] Heidermanns 1996:270.

[39] Or, less semantically satisfactory in my opinion, 'eminent' with a passive _*-d^{h}h_$_1$_-o-_? See, e.g., Balles 2003:16 and 22 with references to previous literature.

[40] See Heidermanns 1993:358, Schaffner 2001:348–9.

[41] _ὕπαφρον ὄμμ' ἔχων_ 'keeping his eyes downcast' (E. _Rh._ 711).

[42] Schindler 1976:351, Nussbaum 2004:§§2.2–2.3. The analysis in which these compounds have _*-ĕ̄t-_ specifically from _*-e-(o/e)t-_ differs therein from that of Kellens 1974:253–9.

[43] See Nussbaum 1999:414 (n. 101), Nussbaum 2004:§2.3.

Pre-Lat. _*-poro-_ ([*per-* 'go': Gmc. _*fara-_ > Go., etc. *faran*] L. *perperus* 'perverse' [Acc. +], *perperam* 'wrongly' [Pl. +]) → _*enter-p(o)rĕ̄t-_ 'go-between' (L. *interpres, -pret-* 'messenger')

7.3.3. In line with the derived formations just mentioned—i.e. endocentric *-ĕ̄t-* derivatives of *o*-stem adnominal compounds—it would seem unobjectionable to hypothesize the following origin of *locuplēt-*:

PIE _*-pl(h_1)-o-_ (Ved. *kāma-prá-*, Lat. *manu-p(u)lus* 'filling the hand' > 'handful' [Cato +])[44] → _*(h_x)lok̑i-pl(h_1)ĕ̄t-_ 'replete (pass. _*-pl[h_1]-o-_) with abundance (_*[h_x]lok̑i-_ > I-Ir. _*rāći-_)'

The second member of this reconstructed compound (i.e. _*-pl[h_1]ĕ̄t-_ 'full' derived from _*-pl[h_1]-o-_ 'id.') may even have an exact correspondent in Greek, where a reconstruction of that kind can immediately supply a semantically apposite analysis of the otherwise difficult and much belabored epithet *δασπλής, -πλήτ-* (whence also *δασπλῆτις*), used of terrifying entities as the Erinyes, Charybdis, and Hecate, among others:

PGk. _*das-_ 'mayhem, destruction' (loc. _*dah-i_: Hom. *ἐν δαΐ* 'in combat'),[45] plus _*-plēt-_ 'full' (< _*-pl(h_1))ĕ̄t-_) → *δασ-πλήτ-* 'full of destruction' > 'ruinous' (*δασπλῆτα Χάρυβδιν* Simon.).[46]

[44] Although the presentation is not quite unambiguous, Leumann 1977:394 can be read as suggesting that *(manu)-p(u)lus* was analogically made to *-plēre* on the model of, e.g., *mero-bibus* 'drinking unmixed wine' beside *bibere*, *sacri-legus* 'seizing sacred property' beside *legere*, *busti-rapus* 'grave robber' beside *rapere*, etc. But surely it is the *-bibus, -legus, -rapus* type, repeating the root vocalism of the present (cf. Weiss: 2011:272), that is the innovation, while (*manu*) *-plo-* and examples like (*an-*)*culus* or (*falsi-, suāvi-*, etc.) *loquus*, potentially continuing inherited types but referable to the related present stem, served as the models.

[45] _*dāhi̯o-_ in *δήϊος* (Hom. +), 'destructive', *δηϊόω* 'slay' (Hom. +); cf. Myc. PN *da-i-qo-ta*, *Δηΐ-φοβος*, etc.

[46] Although the etymology of the first member of *δασπλής* and *δασπλῆτις* is obviously not of crucial importance for present purposes, we may note Kölligan and Macedo's (2015:132–3, 138–48) argument that this FCM should instead be identified as a _*dn̥s-_ that is to be further analyzed either as the zero-grade allomorph of a root noun belonging with _*dn̥s-ro-_ (> Ved. *dasrá-* 'with wondrous power'), etc., or as a completely reduced *s*-stem from that same root—i.e. _*dn̥s-s-_. Of these two possibilities, it is probably slightly better to choose the second, since the *s*-stem is well established (Ved. *dáṃsas-* 'wondrous power' : Gk. *δήνεα* '[good or evil] arts'), while there is no unambiguous independent trace of a root noun. Semantically, in any event, Kölligan and Macedo (2015:138–48) make a case for this FCM that is well worth considering. It is not at all ideal, however, to reconstruct _*-pleh₁-t-_ (with Kölligan and Macedo 2015:132 and cf. Nussbaum 1999:396 and 415 n. 107) as the preform of the SCM (both of *δασπλής* and of *locuplēs*). This already follows from what was pointed out in §7.2.3c about the failure of *t*-extended root-noun SCMs to occur in Latin to roots other than those in zero-grade final *-i*, *-u*, and, possibly, *-r̥* (in which Latin simply agrees with I-Ir.). It is additionally problematic, however, to posit a full grade of the root (despite Nussbaum 1999:396 and 415 n. 107)—which is not supported even by the exceptional type represented by Greek *-βλή-τ-*, *-δμή-τ-* (§7.2.1.1) plus, e.g., *ὠμο-βρώτ-* 'eating raw flesh' (E. +)—in a compositional stem of this kind. Among other things, it would almost demand inherited paradigms like _*-steh₂-t-_, _*-sth₂-t-_ (or _*-sth₂-[ŏ̄/ē]t-?_) to account for Av. *haŋʷharə-stāt-* beside Lat. *anti-stes, -stit-* (§7.2.2.2b), which would require special justification. The _*-pl(h_1)-eh₁-t-_ offered by Kölligan and Macedo (2015:132) without further elucidation is not readily intelligible.

7.4. Though this account of the *-plēt-* in *locuplēs* seems entirely workable, another one may be too.

7.4.1. Along with an explanation of the form itself, it would be desirable to come to some understanding of two peculiarities attaching to the situation of *locuplēs* in Latin overall.

a. As already mentioned (§7.1.2.3), the class of Latin *-ēt-* adjectives other than *locuplēs* comprises only *inquiēs* 'restless', *quiēs* 'at peace', and *mānsuēs* 'tame'. The first of these—*inquiēs*—was analyzed simply as a *bahuvrihi* with the *-ēt*-stem noun *quiēt-* as SCM, while the other two—*quiēs* and *mānsuēs*—were explained as purely secondary analogical rearrangements of *quiētus* and *mānsuētus*, respectively (§7.1.2.3c). This rather unitary picture suggests asking whether *locuplēs* might not be made to conform more closely to the rest of the category of forms to which it belongs. And since there seems little chance of accounting for *locuplēs* as a *bahuvrihi*, the question becomes that of whether the form—although it can be explained quite unobjectionably as a rather old *-ĕ̄t*-stem derivative of the kind just proposed (§7.3.3)—might alternatively be explicable as a secondary creation altogether.

b. The deadjectival factitive *locuplētāre* 'enrich' (§1.1) is also a notable piece of the picture.[47] Typical examples of the relevant derivational type include such instances as:

aequus : *aequāre* 'make equal' (Pl. +), *clārus* : *(dē)clārāre* 'make known' (Pl. +), *dēnsus* : *dēnsāre* 'make dense' (Enn. +), *firmus* : *firmāre* 'solidify' (Pl. +), *ignāvus* : *ignāvāre* 'make lazy' (Acc. +), *laetus* : *laetāre* 'make happy' (Liv. Andr. +), *mactus* : *mactāre* 'honor' (Pl. +), *nūdus* : *nūdāre* 'denude' (Enn. +), *obscūrus* : *obscūrāre* 'darken' (Pl., Enn. +), *pius* : *piāre* 'purify' (Pl. +), etc.

But much less common—especially in older Latin—are cases of this type derived from adjectives that are not *o*-stems. And the number of such exceptional *-ā*-factitives is even smaller than it might initially seem to be.

First of all, beside *-ā*-factitives, which are a special inherited type (*novus* 'new' → *novāre* 'renew' [Sall., Lucr. +] : Hitt. *newaḫḫ-i* 'renews'),[48] Latin has "essive" denominatives in *-ā-* (*aemulus* 'emulous' and 'competitor' → *aemulārī* 'be emulous, be a competitor' [Pl. +], etc.) of a completely different origin, simply representing, ultimately, the generalization of the _*-ā-i̯o/e-_ that was original in denominatives made to *ā*-stem nouns (*ancilla* 'maidservant' → *ancillārī* 'be an *ancilla*' [Titin. +], etc.). This second, essive type, moreover, was widely generalized to bases of all formal classes (not only *aemulus* → *aemulārī* as above, but also *concors* 'in agreement' → *concordāre* 'be in agreement' [Ter. +], etc.). Nothing, of course, would prevent a given *o*-stem adjective from making both an *-ā*-essive and an *-ā*-factitive (*commodus* 'suitable' → *commodāre* 'be accommodating' and 'adapt' [Pl. +]). This means that any number of

[47] For the facts on which this section of the discussion is based, see Mignot 1969:247–305 and 370–80.

[48] See, e.g., Weiss 2011:400.

-*ā*-essives to athematic bases could have analogically acquired factitive value as well. And it is noteworthy that a certain number of the -*ā*-factitives that are made to non-thematic adjectives are at the same time -*ā*-essives (***particeps*** 'partaking' → ***participāre*** 'be, make complicit' [Pl., Enn. +]).

In addition, as has not infrequently been pointed out,[49] Latin *i*-stem adjectives are, at least to some extent, substitutes for older thematic versions. One may note, for example, ***tenuis*** 'thin' beside Gk. ***ταναός*** 'long, tall' (< ****tanau̯ó***-) or ***gravis*** 'heavy' beside Osc. **bravús** (acc. pl. << *-*ons*) or, within Latin itself, OL ***mānus*** 'good' (*Carm. Sal.* +) beside CL ***mānis*** 'id.' (*di manes*) and cases like OL <*fo*>*rctos* (Fest.) beside ***forctes, forctibus*** (Fest.) and CL ***fortis***. The open possibility that a given Latin *i*-stem adjective is a remodeled *o*-stem means, of course, that such -*ā*-factitives as ***levāre*** 'lighten' (Enn. +) to ***levis*** 'light' or ***turpāre*** 'pollute, dishonor' (Enn. +) to ***turpis*** 'ugly, offensive' may either have actually been derived from a thematic predecessor, or were at least made on an -*i*- adj. → *ā*-factitive pattern that got its start from cases in which an *o*-stem, having served to derive the factitive, was replaced by an *i*-stem.

If, now going forward, *i*-stems (because they may directly or indirectly represent earlier -*o*-) and cases of -*ā*-factitive beside -*ā*-essive (which may have factitive value secondarily) are excluded, very few -*ā*-factitives in earlier Latin to athematic adjectives remain. One of very few left, however, is precisely ***locuplētāre*** 'enrich'. Another is synonymous ***dīvitāre*** (Acc. +).[50] And in such a situation it is natural to wonder whether this is perhaps not coincidental.

7.4.2. Both issues may perhaps be dealt with simultaneously by way of a scenario like the following, which can be sketched here only in its most concise form:

a. The starting point might be a reconstructed pre-Latin compound of the form ****loki-plēto***- meaning 'replete with abundance'. This would belong to a class of compounds—presumably inherited, at least as a type[51]—that is well represented in other branches, and can be exemplified by such forms as Ved. ***yajñá-vr̥ddha***- 'increased by the sacrifice', Gk. ***πολύ-χωστος*** 'heaped copiously' (A.) and the like. Other instances of compounds of this kind in Latin itself are ***manu-festus*** 'caught in the act' (XII Tables, Pl. +), ***solli-citus*** (Enn., Pl. +) 'all agitated', etc.

b. From this the derivation of a deadjectival -*ā*-factitive would be a trivial assumption: ****lokiplēto***- 'wealthy' → ****lokiplētā***- 'enrich, make sumptuous', etc.

c. In parallel to the rearrangements hypothesized earlier (§7.1.2.3c), wherein the

[49] See Leumann 1977:347, Weiss 2011:315 with further references.

[50] A third is the antonym of sorts ***īnfēlīcāre*** 'bring bad luck upon' (: ***īnfēlīx*** 'unfortunate'), used in imprecations (Pl. +). Otherwise one can cite only the factitives in -***plicāre*** of the type ***duplicāre*** 'double' (Pl., Naev. +) to ***duplex, quadruplicāre*** 'quadruple' (Pl. +) to ***quadruplex***, etc. (perhaps favored by the descriptive non-factitives of the type ***com-plicāre*** 'fold, tie up' [Pl. +], ***im-plicāre*** 'entwine' [Pl. +], etc.) and ***sospitāre*** 'save' (Enn., Pl. +) to ***sospes*** 'safe and sound', for its part a kind of antonym to the ***īnfēlīcāre*** 'doom' mentioned just above. See further in n. 52.

[51] Antiquity for such compounds is at least highly consistent with the phonology observed in such cases as Ved. ***devá-tta***- 'god-given' < *-*d*(h_3)-*to*- (Wackernagel 1905:98, e.g.).

semantically neighboring -*to*-stem adnominals ***quiētus*** 'tranquil' and ***mānsuētus*** 'tame' were successively redone by synonymic interaction as the *t*-stem adjectives ***quiēt***- (because of ***inquiēt***-) and ***mansuēt***- (because of ***quiēt***-), it could be supposed that ****lokiplēto***- 'wealthy' was secondarily remade as *t*-stem ****lokiplēt***-in imitation of the synonymous *t*-stem ****dīu̯et***-.

d. Such a rearrangement would have left the exceptional derivational pairing ****lokiplēt***- 'wealthy' → ****lokiplētā***- 'enrich'.

e. As the next step in this scenario, the pattern was imitated by a synonymous item, whence ****dīu̯et***- 'wealthy' → ****dīu̯etā***- 'enrich' > ***dīvitāre***.[52]

Abbreviations

DELL = Ernout, A. and A. Meillet. 1959. *Dictionnaire étymologique de la langue latine: Histoire des mots*. 4th ed. Paris: Klincksieck.

EWAia = Mayrhofer, Manfred. 1986–2000. *Etymologisches Wörterbuch des Altindoarischen*. 3 vols. Heidelberg: Winter.

KEWAi = Mayrhofer, Manfred. 1953–80. *Kurzgefasstes etymologisches Wörterbuch des Altindischen*. 3 vols. Heidelberg: Winter.

LEW = Walde, Alois and J. B. Hofmann. 1938–54. *Lateinisches etymologisches Wörterbuch*. 3rd ed. 2 vols. Heidelberg: Winter.

OLD = Glare, P. G. W., ed. 1968–82. *Oxford Latin Dictionary*. Oxford: Clarendon Press.

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[52] It may be worth noting, finally, that ***locuplēt***- 'rich' → ***locuplētāre*** 'enrich' and synonymous ***dīvit***- → ***dīvitāre*** could have thereupon motivated, as in n. 50, ***īnfēlīx*** 'unfortunate' → ***īnfēlīcāre*** 'bring bad luck upon' as an antonym, with ***sospit***- 'safe and sound' → ***sospitāre*** 'save' as an antonym, in turn, to that.

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„Und von ferne sah ich den Rauch des Pferdedungs“: Zum „Rätsellied“ RV 1.164*

THOMAS OBERLIES

Viele auf dem Gebiet des Veda Arbeitende haben sich an der Hymne 1.164 versucht. Die meisten von ihnen gingen davon aus, daß dieses (sog.) „Rätsellied“ eine *Sammlung verschiedener* Rätsel ist.[1] Und so war man immer und immer wieder bemüht, seine Strophen inhaltlich so zu gruppieren, daß sie einzelne Rätsel ergaben, für die man dann—überzeugende und weniger überzeugende—Lösungen in Vorschlag brachte. Das Lied als solches spielte dabei, wenn überhaupt, nur eine ganz nebensächliche Rolle. So stellt Thieme, seinen—im übrigen überzeugenden—Lösungsvorschlag von RV 1.164.15–6 einleitend, fest: „Wie wohl auch vielen anderen Vedologen schien es uns richtig, von der Voraussetzung auszugehen, daß es sich um eine Sammlung von Rätseln ... handelt, die inhaltlich nur locker miteinander verknüpft sind, die sich thematisch aber doch berühren, insofern nämlich, als sie befaßt sind einerseits mit Dingen der kosmischen Ordnung ..., und andererseits mit Gegenständen und Abläufen des Rituals“ (1987:329). Und er betrachtet seinen Artikel als „durchaus ernsten Protest gegen Sichtweisen, ... die ... in dem Gedicht ein einheitliches Ganzes besonderer Art ... erkennen zu sollen glauben“ (1987:330).

Meinem verehrten Lehrer darf man—neben anderem—entgegenhalten, daß, auch wenn man das Lied nicht als ein einheitliches betrachtet, sich noch immer die Aufgabe stellt zu erklären, warum denn in verschiedenen seiner Strophen nun ausgerechnet vom *Pravargya-Ritual* die Rede ist, und dies, wie Oldenberg vor langer Zeit sehr zu recht bemerkte, ganz „ohne alle Rätselhaftigkeit“ (1896:182 Anm. 1), so etwa in Strophe 31, wo mit einer bis dato m.W. noch nicht verzeichneten „Kenning“ vom Gharma-Kessel gesagt wird:[2] „Ich erschaute den Hüter der Kuh[milch], sich nicht niederlegend, hin und her auf den Pfaden seine Bahn ziehend. Die nach derselben und die nach verschiedenen Richtungen gehenden [Strahlen] als [seine] Kleidung tragend

*Dieser Aufsatz fußt auf einem Vortrag, den ich auf dem 32. Deutschen Orientalistentag in Münster und anläßlich eines Lehraufenthalts am Institut für Südasien-, Tibet- und Buddhismuskunde der Universität Wien gehalten habe. Werner Knobl hatte die große Freundlichkeit, das dafür ausgearbeitete Skript sorgsam durchzugehen und mir wertvolle Hinweise zu geben.

[1] Zuletzt Witzel und Gotō 2007:734 (im Anschluß an Geldner 1951:I 227).

[2] Ähnlich heißt von ihm in Strophe 29: „Dieser hier summt, von dem die Kuh[milch] umschlossen ist“ (hierzu s. Oldenberg 1896:182–3).

dreht er sich hin [und her] unter den Wesen“. Der Hinweis Thiemes, daß Teile des Liedes mit „Gegenständen und Abläufen des Rituals“ (1987:329) befaßt sind, geht doch deutlich hinter den bereits von Oldenberg erreichten Wissensstand zurück.

Heute bestehen nur wenige Zweifel, und dies vor allem dank einer eingehenden Untersuchung von Houben (2000), daß die Strophen 20–2, 26–31, 38, 40, 43 und 49, vielleicht auch 1 und 4–5, vom Pravargya[3] sprechen. Damit aber stellen sich für diejenigen, die RV 1.164 als eine *Sammlung* von Rätseln betrachten, ja auch gewisse textgeschichtliche Fragen, die zu beantworten sind. Auf dieses Problem gehen ihre Arbeiten indes, soweit zu sehen, gar nicht ein. Leider haben auch ‚Unitarier' wie etwa Kunhan Raja (1956) und Walter Norman Brown (1968) dem Pravargya-Ritual so gut wie keine Aufmerksamkeit geschenkt, obwohl, dem *Omphalos*-Prinzip zufolge,[4] dessen sich die Dichter des Ṛgveda so gerne bedient haben, gerade die Strophen 26 und 27, das eigentliche Zentrum der Hymne also (25 Strophen – **26 + 27** – 25 Strophen),[5] besonders ‚unrätselhaft' von diesem Ritual sprechen. Ihm möchte ich im folgenden meine Aufmerksamkeit widmen, wobei ich mich, wie dies Oldenberg in seinen *Noten* so schön gesagt hat, „von dem Versuch, die Rätsel des großen Rätselliedes zu raten, im Ganzen zurückgehalten habe“ (1909:157). Wohl auch deshalb werden hier keine spektakulären Ergebnisse präsentiert werden. Ich meine aber doch wahrscheinlich machen zu können, inwiefern die—zunächst—widerstreitenden Teile dieser (angeblichen) Sammlung zusammengehören *könnten*.

Ausgangspunkt ist die—nun nicht eben aufsehenerregende—Beobachtung, daß viele Beispiele es wahrscheinlich machen, daß, wenn in einem Hymnus des Ṛgveda wiederholt von einem Sachverhalt die Rede ist, dieser auch dessen Hauptgegenstand bildet. Dies gilt auch, wenn es sich bei diesem Sachverhalt um einen Ritus oder ein Ritual handelt, wie etwa beim Aponaptrīya, RV 10.30 also.[6] Gehen wir somit zunächst einmal davon aus, daß das Thema des *ganzen* ‚Rätselliedes' das Pravargya-Ritual ist. Dann findet der Umstand, daß in ihm auch immer wieder von der Sonne gesprochen wird,[7] umgehend seine Erklärung. Denn der Pravargya ist ein Ritual, das der Stärkung der Sonne dient und in dem zu diesem Zweck Hitze und Glut im Übermaß erzeugt werden: In einem metallenen Kessel[8] wird Ghee so sehr erhitzt, daß es sich entzündet, wenn Milch eingegossen wird, und daß beide dann in heller Flamme

[3] Das ṛgvedische Pravargya-Ritual war mit großer Sicherheit die Vorform des Upanayana (s. Oberlies 2012:283–9).

[4] Es zählt zu den vielen Verdiensten, die sich die Jubilarin, der diese Festschrift gewidmet ist, um die Vedistik erworben hat, daß sie dieses Prinzip, dessen sich die Dichter häufig bedient haben, aus den Liedern des Ṛgveda mit der für sie typischen Klarheit herausgearbeitet hat (s. Jamison 2004 und 2007:80–9).

[5] Dies setzt natürlich voraus, daß das Lied von Anfang an aus 52 Strophen bestanden hat, daß also die Strophen 48 bis 52 nicht spätere Zutat sind, wie dies Oldenberg in den *Noten* (1909:157)—tallerdings sehr vorsichtig—vermutet hat.

[6] Hierzu siehe Oldenberg 1912:234; vgl. auch Oberlies 2012:126 und 453–4 Anm. 186.

[7] Ausführlich hierzu Oldenberg 1917:446–9.

[8] Während im (klassischen) Śrauta-Ritual ein Kessel aus Ton verwendet wird, war dieser im ṛgvedischen aus Metall gefertigt (s. Lüders 1959:360–1 und Oberlies 2012:283).

aus dem Kessel geschleudert werden. Nicht nur aus dem ‚Froschlied' (RV 7.103.9),[9] sondern auch aus RV 1.164.43 geht mit Deutlichkeit hervor, daß der Pravargya in ṛgvedischer Zeit zur größten Sommerhitze begangen wurde, nämlich am Viṣūvant-Tag,[10] dem Tag des Sommersolstiz:

> „Ich erschaute von ferne den aus Pferdedung hervorgehenden Rauch im Laufe der Sommersonnenwende jenseits dieses unteren [Raumes]. Den gesprenkelten Stier kochten sich die Helden. Das waren die ersten Ordnungen".

Da mag es überraschen, daß die Sonne der ***Stärkung*** bedarf. Doch gestärkt werden muß sie—das gilt es über bisherige Erklärungen hinausgehend festzustellen[11]—für den unmittelbar bevorstehenden Aufzug der Wolken des Monsuns, die sie nun für Wochen verhüllen werden. Und vom „Auge der Sonne, das in Dunst gehüllt, [am Himmel] dahinzieht", spricht unser Lied ja mit aller wünschenswerter Klarheit (Str. 14). Nun ist es das andere große Anliegen des Pravargya, den Regen des Monsuns herbeizuführen.[12] Und eben der „Regen" ist ein weiteres im ‚Rätsellied' wiederholt berührtes Thema, das, da auch ganz am Ende des Liedes aufgegriffen, dessen eigentliche Nutzanwendung zu bilden scheint.[13] Das Thema ***Regen*** knüpft unmittelbar an das der Sonne an, da nach der Vorstellung des Ṛgveda—einer unter mehreren—die Sonnenstrahlen Wasser von der Erde hinauf in den Himmel bringen, von wo dieses als Regen auf die Erde zurückkehrt. Darauf spielt Strophe 7 unseres Liedes an, in der es heißt: „Hier soll nur sprechen, wer fürwahr die niedergesetzte Stätte dieses lieben Vogels kennt. Aus ihrem Kopf lassen seine Kühe Milch strömen. In das Wasser als Hülle sich kleidend, haben sie es mit dem Fuß getrunken".[14] Den Monsunregen herbeizuführen leistet der Pravargya im Verbund mit einer ihm vorgeschalteten Observanz, der (sog.) Avāntaradīkṣā, die im klassischen Ritual für den Veda-Schüler bestimmt ist (vgl. Āpastamba-Śrautasūtra XV 20.4–10). Daß diese „Weihe" bereits in ṛgvedischer Zeit mit dem Pravargya verbunden war, macht wiederum das ‚Froschlied' wahrscheinlich, wo es heißt:

> „Als Dichter, die ein Jahr lang dagelegen haben, ihr Gelübde wahrend, haben die Frösche nun eben ihre Stimme erhoben, die angetrieben war

[9] Hierzu siehe Jacobi 1893.

[10] Zu der einst dem Vf. von Thieme mündlich unterbreiteten Erklärung des Wortes siehe *EWAia* s.v. ***viṣu-***.

[11] Mit der von Oldenberg (1917:447) vorgebrachten Erklärung der ***Stärkung*** der Sonne hat sich Lüders (1959:364–8) kritisch auseinandergesetzt. Seine Erklärung—die Stärkung des himmlischen Milchstromes—ist allerdings ebenso wenig akzeptabel.

[12] Siehe etwa Śatapatha-Brāhmaṇa XIV 2.1.21.

[13] Zur vorletzten Strophe des Liedes (1.164.51: „Dasselbe Wasser geht hinauf und herab im Lauf der Tage: die Erde schwellen die Regengüsse, den Himmel schwellen die Flammen Agnis") siehe Oldenberg (1917:113–4) und Lüders (1951:313).

[14] Diese Strophe ist ausführlich von Lüders (1951:311) behandelt worden.

> von Parjanya.... Die Dichter, die durch einen ihnen eigentümlichen Soma (nl. den Gharma) gekennzeichnet sind, gaben Laut von sich, ihr bei der Vollendung des Jahres zu rezitierendes Lied artikulierend.[15] Die Adhvaryus, die durch eine ihnen eigentümliche Hitze (nl. die des Gharma) gekennzeichnet sind, sind, geschwitzt habend, [nun] sichtbar geworden. Kein einziger ist [mehr] verborgen.... Wenn nach einem Jahr die Regenzeit gekommen ist, werden die erhitzten Gharma-Töpfe entleert" (RV 7.103.1, 7–9).[16]

Aus den nach-ṛgvedischen Ritualtexten erhellt, daß für die Avāntaradīkṣā das ***eine*** Jahr eine entscheidend wichtige Rolle spielt. So fand etwa nach diesem ***einen*** Jahr ein Schneiden des Haares und des Bartes der Veda-Schüler statt, die während der Dīkṣā, die sie in ‚Seklusion' zugebracht hatten, üppig gewachsen waren.[17] Davon nun ***könnte*** Strophe 44 des „Rätselliedes" sprechen: „Drei Langmähnige erscheinen in rechter Abfolge. Nach einem Jahr schert sich der eine von ihnen. Der eine blickt hin auf alles mit seinen Kräften. Das Dahinziehen des einen ist sichtbar, nicht [aber] seine Gestalt". Wenn wir uns vergegenwärtigen, daß diese Haarschur um das Sommersolstiz und damit um den Beginn des Monsuns stattfand, macht die Zusammenordnung von Veda-Schüler, Sonne und Wind, die „in rechter Abfolge erscheinen", sehr viel Sinn. Doch nicht nur hier, sondern auch sonst ist im ‚Rätsellied' immer wieder von dem ***einen*** Jahr die Rede. Und das eine Jahr „ist" ja—so Śatapatha-Brāhmaṇa XIV 1.1.27—„der, der da [oben] glüht. Und der Pravargya ist auch der[, der da oben glüht]".

„Scheidet" man nun die Strophen, in denen—und dies ganz der ***opinio communis*** zufolge—vom Pravargya, von der Sonne, vom Regen und vom Jahr die Rede ist, (gewissermaßen) aus, bleibt ein Rest von etwa 30 Strophen. Mindestens sieben davon werden durch die Themen bzw. Stichwörter „unkundig", „wissend" und „fragen" zusammengehalten. Zwei Beispiele mögen genügen, dies zu veranschaulichen. So heißt es in Strophe 5: „Als Unkundiger, der mit seinem Denken nicht versteht, frage ich nach diesen niedergesetzten Fußspuren der Götter..." Und hierher gehört auch die von Karl Hoffmann so treffend erklärte Strophe 16:[18] „Sie, die [in Wirklichkeit] weiblich sind, nennt man mir trotzdem männlich. – Es sieht, wer Augen hat, nicht erkennt der Blinde. – Als Dichter, der [noch] ein [unmündiger] Sohn ist, als solcher

[15] Auch wenn es wohl keines „Beweises" mehr bedarf, daß mit dem Quaken der Frösche, das sich so plötzlich erhebt, das während der Avāntaradīkṣā ein Jahr lang eingeübte Rezitieren der Initianden gemeint ist, sei doch—diesen Hinweis verdanke ich einem alten Artikel von Grierson (1903:464)—auf Tulsīdās verwiesen, der in seinem Rāmacaritmanas (IV 14.1) just diesen Vergleich anzieht: „Überall wird das Tönen der Frösche gehört wie [das von] eine[r] Klasse von Brahmanen-Schülern, die den Veda rezitiert".

[16] Daß und wie das Frosch-Lied vor dem Hintergrund des Pravargya zu verstehen ist, hat Jamison (1991/92) überzeugend herausgestellt.

[17] Siehe Āpastamba-Śrautasūtra XV 21.3.

[18] Zur Erläuterung zog Hoffmann eine Erzählung des Pañcaviṃśa-Brāhmaṇa (XIII 3.24) heran, in der „der Sohn als bester Mantraverfasser seine im Vaterschaftsverhältnis stehenden Verwandten (***pitaraḥ***) mit ***putrakāḥ*** anspricht" (Hoffmann 1967:144).

habe ich sie erkannt. Wer solche [Dinge] auseinander kennt, der wird Vater seines Vaters sein“.[19]

An diese Gruppe von Versen und Strophen lassen sich, zunächst einmal tentativ, diejenigen anschließen—es sind sieben—, die von der Sprache handeln, sowie diejenigen, die von den Metren sprechen, in die diese Sprache gegossen werden kann. Denn wessen die Unkundigen „unkundig“ sind, was sie nicht „kennen“ und „wonach sie fragen“, ist die Sprache: „Wer diese [Silbe der Ṛc] nicht kennt, was wird der mit der Ṛc machen?“ (RV 1.164.39). So gilt es, „Anteil an der Sprache zu erlangen“, die Agni im Menschen entstehen läßt[20]—wie es in Strophe 37 heißt.

Zusammengenommen ergeben diese Beobachtungen folgendes Bild des Inhalts des Rätselliedes:

25 Strophen ←

1	2	3	4	5	6	7	8	9	10	11	12	13
14	15	16	17	18	19	20	21	22	23	24	25	26
27	28	29	30	31	32	33	34	35	36	37	38	39
40	41	42	43	44	45	46	47	48	49	50	51	52

→ 25 Strophen

Pravargya	Sonne	Regen	Jahr	(Un)wissen	Sprache/Metrik

Im Hinblick auf die hier vorgetragene Lösung ist auch bedeutsam, daß etliche Strophen von der *Mutter* (8, 9, 10, 32) und vor allem vom *Vater* (8, 10, 12, 16, 18, 22 33) sprechen.

Verschiedene der „weißen Flecken“ finden—dies sei am Rande vermerkt—ihre Erklärung dadurch, daß eine in Rede stehende Vorstellung ein, zwei Strophen weit fortgeführt wird. Dazu werden zumeist geläufige Ausdeutungen verwendet, die das Opfer bereits im Ṛgveda gefunden hat. So wird etwa in Strophe 8 von der Befruchtung der Erde durch den Himmel mit dessen Samen, dem Regen, gesprochen, von dem die Verse 7cd handelten. Aus der Vereinigung von Himmel und Erde geht—so der Text weiter—Uṣas hervor, die, eine Kuh, als Mutter Agnis vor den Wagen der Dakṣiṇā gespannt ist.[21]

In diesem Lied mit seinen 52 Strophen ist also—und hierin ist sich die Vedistik eigentlich völlig einig—in insgesamt 34 vom Pravargya, von der Sonne, vom Regen, vom Jahr, vom Wissen und Unwissen, von Wissenden und Unwissenden, von der Sprache und den Metren und von Mutter und Vater die Rede. Passen diese auf den ersten Blick so verschiedenen Themen nun irgendwie zusammen? Abschließend

[19] Siehe Hoffmann 1967:144–5.
[20] Siehe Oberlies 2012:117.
[21] Hierzu siehe Oldenberg 1896:180–1.

sei—dem zur Verfügung stehenden Raum Rechnung tragend—kurz gezeigt,[22] daß das Verbindungsglied die genannte Avāntaradīkṣā ist, also jene im klassischen Ritual dem Pravargya-Ritual vorgeschaltete „sich innerhalb befindliche Weihe“. Sie, die teils Gegenstand des Śrauta-, teils aber auch des Gṛhyasūtra ist,[23] gilt dem Veda-Schüler, der erst nach ihrem Vollzug am Pravargya teilnehmen darf.[24] Im klassischen Ritual dient sie dem Studium der Pravargya-Texte und währt ein ganzes Jahr lang: „Ein Jahr lang übe er diese Observanz. In diesem einen Jahr erlerne er [die Pravargya-Abschnitte des Veda]“ (Āpastamba-Śrautasūtra XV 21.1). Während dieser Zeit wird der Brahmacārin in engste Beziehung zur Sonne gebracht: „Er hat folgendes zu beachten: Er darf sich im Sonnenschein nicht bedecken.... Er darf im Sonnenschein nicht ausspeien.... Er darf nicht im Sonnenschein seinen Urin lassen.... Nachts soll er bei Licht essen; damit macht er sich ein Abbild dessen, der da glüht“ (Śatapatha-Brāhmaṇa XIV 1.1.33). Auch soll er die Texte „nicht unter einer Wolke und nicht im Schatten“ (Āpastamba-Śrautasūtra XV 21.8) einüben. Da er entsprechend des generellen Charakters dieser „Weihe“ Wasser zu meiden hat, kommt seine Verbindung zum Regen weniger deutlich zum Tragen. Doch daß er „einen mit Wasser gefüllten Krug anzublicken hat“ (Āpastamba-Śrautasūtra XV 20.8–9), gehört sicherlich hierher.

Dieselben oder doch ganz ähnliche Verbindungen zur Sonne und zum Regen weisen die sichtbar mit der Avāntaradīkṣā verwandten Vedavratas auf, die „Gelübde“ also, „die das Erlernen bestimmter Abschnitte des Veda begleiten“.[25] In besonders augenfälliger Weise ist diese Verbindung beim Śakvarī-Vrata der Fall. Dem Veda-Schüler, der diesen Gesang erlernen möchte, sind für 12 oder 9 oder 6 oder 3 oder auch nur *ein* Jahr Observanzen auferlegt, unter denen sich die folgenden finden: Dreimal am Tag hat er Wasser zu berühren; er hat schwarze Kleider zu tragen und schwarze Nahrung zu sich zu nehmen; wenn es regnet, hat er sich zu setzen, aber nicht unter ein Dach; zum regnenden Himmel muß er sagen „Wasser ist das Śakvarī-Lied“. Wenn „er diese Observanzen erfüllt, wird Parjanya nach seinem Willen regnen“, denn „die Mahānāmnīs“—ein anderer Name für das Śakvarī-Lied—„bringen Wasser zustande“ (Gobhila-Gṛhyasūtra III 2 ~ Khādira-Gṛhyasūtra II 5.23–31). Es ist überdeutlich, wie der Veda-Schüler durch dauernde Verbindung zum Wasser zum Regenbringer gemacht wird. Der Vergleich mit der Kārīriṣṭi, einem Ritual, das der, der „Regen

[22] Eine umfassende Untersuchung zum (vedischen) Initiationsritual ist seit längerem in Arbeit. In ihr wird das gesamte textliche Material für all die hier berührten Fragen zusammengestellt werden.
[23] Ausführlich hierzu Kashikar 1976. Man beachte, daß der Pravargya eines von (nur) zwei Ritualen ist, die in den Āraṇyakas ausführlich behandelt werden (das andere ist das Mahāvrata-Ritual, der feierlich begangene Tag der Wintersonnenwende) und daß die Āraṇyakas Texte sind, die speziell für den Brahmacārin bestimmt sind.
[24] Siehe Kashikar (1973:7).
[25] Zu ihnen zählt in einigen Gṛhyasūtras denn auch eine (teils unter dem Namen *Śukriya* firmierende) Pravargya-Observanz, so etwa Vārāha-Gṛhyasūtra VII 17–22 (siehe Houben 1991:22–3).

wünscht“ (Āpastamba-Śrautasūtra XIX 25,16), durchführen soll, zeigt, daß er durch das Tragen schwarzer Kleidung gleichsam zu einer dunklen Regenwolke wird.

Nicht weniger deutlich setzen die Vedavratas den Veda-Schüler auch in Beziehung zur Sonne: „Die, welche diese Sonnen-Observanz vollziehen, tragen nur ein Gewand. Sie lassen nichts zwischen sich und die Sonne kommen außer Bäumen und Häusern“ (Gobhila-Gṛhyasūtra III 1.31 ~ Khādira-Gṛhyasūtra II 5.19–20).

Avāntaradīkṣā und Vedavratas zeigen also eine enge Verbindung von Textstudium, Sonne und Regen, die der Erklärung bedarf. Erstaunlicherweise hat sich hierzu—soweit zu sehen—lediglich Oldenberg geäußert: „So darf angenommen werden, daß sich hier, in die Vorstellungskreise und Ordnungen des vedischen Schulunterrichts eingefügt, alte Zaubergebräuche erhalten haben, die den Regenzauberer zu seiner Würde vorbereiteten und weihten“ (1917:421). *Warum* dies aber hätte geschehen sein sollen, sagt uns Oldenberg indes nicht. Eine Erklärung aber liefern Avāntaradīkṣā und Pravargya. Denn während erstgenannte die Einweihung in das „Geheimnis“ des Rituals bedeutet, bezweckt letzteres die Stärkung der Sonne und das Heraufführen der Regenwolken des Monsuns, und alles ist fokusiert auf den Veda-Schüler. Viele, viele Details ließen sich anführen, die das hier Vorgetragene zu stützen vermögen. Daß das jährliche Studium des Veda-Schülers nun ausgerechnet zur Regenzeit beginnt, fügt sich ebenso in das hier gezeichnete Bild, wie der Umstand, daß die Observanzen, die Śatapatha-Brāhmaṇa XIV 1.1.28–33 für den „Pravargya-Schüler“ lehrt, vom Pāraskara-Gṛhyasūtra (II 8)—fast wörtlich—für den Snātaka gegeben werden, und auch daß der Brahmacārin der ihm geltenden Hymne des Atharvaveda zufolge ein Gharma-Opfer zu verrichten hat, mit anderen Worten: einen Pravargya. Und hier schließt sich der Kreis. Denn diese große Hymne, die die Sonne als Veda-Schüler verherrlicht, zitiert etliche Verse aus dem (sog.) „Rätsellied“. Und einer dieser Verse, RV 1.164.42d, wird in der Atharvaveda-Hymne (AVŚ 11.5.12 = AVP 16.154.2) ergänzt durch drei weitere, die davon sprechen, daß es der Brahmacārin ist, der der Erde durch Regen Leben gibt. Dabei wird der Veda-Schüler in der Tat als ‚Regenmacher’ verherrlicht:

> *abhikrándan stanáyann aruṇáḥ śitiṅgó bṛhác chépò 'nu bhū́mau jabhāra brahmacārī́ siñcati sā́nau rétaḥ pṛthivyā́m* [*téna jīvanti pradíśaś cátasraḥ*]//
>
> „Brüllend [und] donnernd hat der rötliche, weißfüßige [Veda-Schüler] seinen großen Penis in die Erde gebracht. Der Brahmacārin sprenkelt den Samen auf den Rücken, auf die Erde. [Dadurch leben die vier Himmelsrichtungen.]

Daß das „Rätsellied“ doch weniger rätselhaft ist als dies immer behauptet wurde, sollte im Vorhergehenden deutlich gemacht werden. Trifft diese Deutung des Liedes zu, hätte sich Oldenbergs Divination vollauf bestätigt: „Die wahren Lösungen der Rätsel … müßten mehr sakrifikal aussehen [als dies geschehen ist]“ (1896:180) und „das Rückgrat einer Deutung muß durch rituelle … Elemente gebildet werden“ (1896: 183). Daß Rätsel, und nicht wenige, geblieben sind, betrübt mich, gestehen zu müssen.

Vor allem die Reihenfolge der Strophen bleibt—zunächst zumindest—ein Geheimnis. Alles, was diesbezüglich gesagt werden kann, ist, daß die Strophen, die von der Avāntaradīkṣā handeln, denen, die vom Pravargya sprechen, vorangehen, so daß die Reihenfolge des Rituals gegeben wäre. Klein sind nach wie vor die „Schritte“, die wir „niedersetzen“ müssen—um Strophe 5 unseres Liedes zu zitieren—, um langsam all die Rätsel zu lösen, die der Ṛgveda noch immer bereithält. Einen glaube ich gemacht zu haben. Doch wie sagte schon ein Dichter des Ṛgveda: „Man weiß es oder vielleicht weiß man es auch nicht“ (RV 10.129.7).

Abkürzungen

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Judges and Courts in Ancient India: On *dharmastha* and *prāḍvivāka*

PATRICK OLIVELLE

Stephanie Jamison has taught us many things during her illustrious career, but one thing stands out in my mind. Do not simply read the lines of a text, she tells us, lines that the author wanted us to read. But ***read between the lines***, read those absent and implied lines that the author did not want us to read. In them may lie the most interesting things that a text has to tell us, and also the most important. So here is my "reading between the lines" with respect to the issue of judges in the ancient legal literature of India.

It is probable that at least by the middle of the first millennium BCE there existed in ancient India a court system where disputes between individuals and between groups such as guilds and villages resulting in lawsuits were resolved. Early literature also points to the development of sophisticated rules of legal procedure both with regard to the constitution of the courts and court personnel and with regard to rules of evidence and adjudication. It is, therefore, likely that some sort of judiciary must have existed from this time. There is, however, a lack of clarity with regard to how this judiciary was constituted and who presided over court proceedings.

The clearest statements in this regard come from Book 3 of Kauṭilya's ***Arthaśāstra***, a book that is entitled "***dharmasthīyam*** "Pertaining to Dharmasthas."[1] The discussion in this book clearly identifies the judges as ***dharmastha*** in the context of private litigation. In the parallel tradition of Dharmaśāstra, the picture is less clear. The king is said to be the primary judge, and it is only in his absence that his judicial functions are delegated to another person, who then functions as judge. Scholars have assumed that the term for this judge is ***prāḍvivāka***. The conventional wisdom, then, is that the terms for 'judge' in Kauṭilya's ***Arthaśāstra*** and the Dharmaśāstras are different, the former using the term ***dharmastha*** and the latter ***prāḍvivāka***.

There is also a scholarly consensus that the sections on the judiciary and legal procedure (*vyavahāra*) in the two textual traditions are interdependent; most scholars consider, correctly I think, that the section on legal procedure of Manu (2nd century CE), the earliest Dharmaśāstra to have an extended discussion of this topic, is dependent on Kauṭilya's exposition. This makes the divergence of terminology all the more

[1] Kauṭilya's work was written probably in the first century CE, even though his source material may predate him by a century or more.

surprising and requiring an explanation, an explanation that has not simply eluded scholars but that previous scholarship has not even attempted. Most have accepted as fact that the two terms are simply synonyms. Kane in his monumental *History of Dharmaśāstra* (1962–75, 3:271–5), for example, takes the two as equivalents and as referring to the chief judge. In this paper I will argue that not only are the two terms not synonyms, but that their semantic histories and usage within jurisprudence throw considerable light on the early legal history of India.

A major reason for taking the two terms as essentially different is the fact that the two are almost never used interchangeably in the literature. The *Arthaśāstra* uses exclusively *dharmastha* and never *prāḍvivāka*. Within the Dharmaśāstra tradition the normal term is *prāḍvivāka*, and *dharmastha* is used only twice in the entire history of Dharmaśāstra, once in Manu and once in Nārada, usages I will presently examine.

Before looking at their usage, I want to focus first on the two terms themselves. To begin with, both compounds appear somewhat unusual, and I want to briefly analyze their grammar. The first member of *prāḍvivāka*, according to both Wackernagel (1896:174, line 27) and Mayrhofer (1956–80:2.376), is probably the rare noun *prāś*, with the palatal sibilant changing to the retroflex just as *viś* to *viṭ*. Debrunner (1957:93) further observes that the form *prāḍ* is found only in epic-classical Sanskrit and only within this very compound. The only other place this ancient noun *prāś* occurs is *Atharva Veda* (Śaunaka) 2.27, which opens with: *nec chátruḥ prā́śam jayāti*, "May [my] foe by no means win the dispute" (tr. Whitney), and where we have the refrain repeated six times: *prā́śaṃ prátiprāśo jahi*, "Smite the dispute of my counter-disputant" (tr. Whitney). Here we have the term *prā́ś*, as well as the compound *prátiprāś*, used clearly within the context of the resolution of a dispute and placed within a rite to make the opponent lose his case. In a special way, given its derivation from the root √*prach* 'ask', this term must refer to the questions raised and answered during the course of resolving a dispute. The location of this dispute is probably a public arena, what would become in later times a court of law.

The second member of the compound, *vivāka*, derived from the compound verb *vi* √*vac*, probably refers to a person, perhaps a public official, in charge of settling such disputes and interrogating the disputants. The term *vivāka*, however, is absent in the Vedic literature outside of this compound. The closest is *vivaktṛ* in the *Aitareya Brāhmaṇa* (3.35): *adhīyann upahanyād anyaṃ vivaktāram icched* ("In reciting he may err; he should seek another corrector," tr. Keith, modified), and *tasmād āgnimārute na vyucyam eṣṭavyo vivaktā* ("Therefore at the Āgnimāruta he should not himself correct, a corrector should be found," tr. Keith). If *vivāka* has a similar meaning, then it should have meant something like a person who puts right what has gone wrong, and in the case of a dispute, a person who resolves the dispute correctly. Medieval commentators support such an interpretation.[2]

[2]Vijñāneśvara (*Mitākṣarā* on *Yājñavalkya Smṛti* 2.3) offers the following definition of the compound *prāḍvivāka*: *tasya ceyaṃ yaugiki saṃjñā | arthipratyarthinau pṛcchatīti prāṭ tayor vacanaṃ viruddham*

The term *dharmastha*, although seemingly clear, also poses problems. First, in the *Arthaśāstra* compounds ending in *-stha* generally have as the first member a place or location. The compound, therefore, refers to a person standing or established in a particular place. The examples are *dvāḥstha* ('standing or appearing at the door', 1.12.13; or 'gate keeper', 2.36.32); *anīkastha* ('standing in the army; a warrior or elephant trainer', 2.1.7; 2.2.12; 2.31.1; 2.32.16; 5.3.12); *gṛhastha* ('staying in a house, householder', 1.3.9); *adhikaraṇastha* ('staying in an office, an officer', 1.14.3); and *tatrastha* ('staying there, while remaining there', 1.18.7). So the compound *dharmastha*, where *dharma* is not a location, is anomalous. Outside the *Arthaśāstra*, of course, there are Sanskrit compounds ending is *-stha* with a first member that is not a location, but in those cases the reference is to someone firmly committed to what is presented in the first member of the compound. So in the present case, the *dharmastha* would be someone who is dedicated to *dharma* rather than a minor government official. A clue is found in the other similar compound *śāsanastha* (2.9.19), which refers to an official who is appointed to an office through a decree, or whose authority in a particular office is based on a decree. If we take *dharmastha* as a similar compound, then this official's authority is based on *dharma*, not, I think, in the generic sense of *dharma*, but in the context of the four legal provinces spelled out in 2.7.2: *dharma*, *vyavahāra*, *caritra*, and *saṃsthāna*.[3] Here *dharma* stands as the broadest base of correct action within society.

I want to move on now to look at how these two terms are actually used in the early legal literature. We have much more information about *dharmastha*, mostly in Kauṭilya's *Arthaśāstra*, than we do with respect to *prāḍvivāka*. Therefore, I will take the former up for comment first.

As already noted, the clearest statements in this regard come from Book 3 of Kauṭilya's *Arthaśāstra*, a book that is entitled *dharmasthīyam* "Pertaining to Dharmasthas." At first sight it appears clear that the *dharmastha* is a judge who adjudicates lawsuits. The very first sentence of this books states: *dharmasthās trayas trayo 'mātyā . . . vyāvahārikān arthān kuryuḥ* "Dharmasthas of ministerial rank in groups of three should conduct trials . . . of lawsuits arising out of transactions." Nothing is said with regard to the role, if any, of the king. However, if we look carefully at this book, the discussion is more about legal transactions (*vyavahāra*) than about lawsuits, often referred to also

aviruddhaṃ ca sabhyaiḥ saha vivinakti vivecayati veti vivākaḥ | prāṭ cāsau vivākaś ca prāḍvivākaḥ || "This, moreover, is an etymological designation of his (i.e., the judge). *prāṭ* is derived from the fact that he questions the plaintiff and the defendant. *vivāka* is derived from the fact that, along with the assessors, he examines—or differentiates—their statements according to what is consistent and what is not. He is both a *prāṭ* and a *vivāka*; so he is *prāḍvivāka*." Thus Vijñāneśvara takes the compound as a dvandva with a strictly etymological meaning, where both terms describe two aspects of the official. Vijñāneśvara appears to be following Bhāruci (on Manu 8.79), who provides a similar explanation: *pṛcchatīti prāṭ | pṛṣṭvā viśeṣeṇa dharmasaṃkaṭeṣu viśiṣṭaṃ vā vakṣyati vivākaḥ | prāṭ cāsau vivākaś ceti prāḍvivākaḥ ||* "*prāṭ* is derived from the fact that he questions. *vivāka* is derived from the fact that, after questioning, he will, with respect to difficult points of dharma, explain with specificity or in an exceptional manner. He is both a *prāṭ* and a *vivāka*; so he is *prāḍvivāka*." Commenting on the same verse, Medhāthiti offers the same explanation.

[3]For a detailed study of these four areas of law, see Olivelle and McClish 2015.

as *vyavahāra*. Indeed, the very identity of the Sanskrit term may have contributed to the confusion.

The content of Book 3 deals with transactions (*vyavahāra*) that have legal ramifications; but the book itself is not simply about the judiciary, court procedures, or the conduct of lawsuits. This subject comes up in Topic 58 about writing down the plaint, at the end of Chapter 1, and in Topic 63 (3.11.28–50) that deals with witnesses in a lawsuit. It is clear that the Dharmastha was not simply a judge but a government official with wide-ranging responsibilities. So, for example, at 3.4.35 his permission is required for a woman to remarry; at 3.12.14 his permission is needed to sell a pledge when the man who made the pledge is missing; and at 3.12.10, 12, when a stolen article is discovered, the owner gets the Dharmastha to confiscate it. He appears at the very end of the third book in a section called "miscellaneous" (3.20.22), where he is asked to personally look into the affairs of gods, ascetics, and the like. His final appearance, this time in a judicial capacity, is in the concluding verse (3.20.24), which ties the verse to the opening sentence and provides a conclusion to the entire book. Looking at other sections of the *Arthaśāstra*, we see at 2.1.30 that a person who wants to leave home for the ascetic life has to first get the permission of a *dharmastha*. There were also jails attached to the office of a *dharmastha*, which were called *cāraka* (4.9.21).

So the *dharmastha* clearly had responsibility for resolving disputes and adjudicating lawsuits, but his duties went far beyond that. I have called him a Justice (Olivelle 2013), who was responsible for assuring the proper adherence to morals and laws on the part of citizens. This is the area of *dharma* that I mentioned earlier, the broadest basis for correct and lawful activity by individuals and groups.

There are only two places in all of the Dharmaśāstras where *dharmastha* occurs.[4] The first is at Manu 8.57 in a passage (8.52–7) that paraphrases and renders in verse an *Arthaśāstra* passage (3.1.19). The second is in *Nārada Smṛti* (Mātṛkā 2.19), but this section of the text is in all likelihood spurious, found in only one of Lariviere's (1989) manuscripts.

Turning to the term *prāḍvivāka*, in spite of Kane's (1962–75, 3:272) confident assertion that "A Judge was generally styled *prāḍvivāka*," it is far from clear that originally this term referred to a judge, that is, the court official who presides over trials and is charged with rendering a verdict in a lawsuit. First, this term is quite rare in texts that predate the 5th century CE. It is found in only three: in one passage of Gautama, in three verses of Manu, and in three of Nārada. A close examination of these shows that the *prāḍvivāka* was probably not the judge but a senior court official who interrogated

[4]The great Indian poet and playwright Kālidāsa in his *Raghuvaṃśa* (17.39) uses the term *dharmastha*, showing his familiarity here as elsewhere with Kauṭilya's *Arthaśāstra* and its unique vocabulary. (Citations of Manu are from Olivelle 2005, and citations of the Dharmasūtras of Āpastamba, Gautama, and Vasiṣṭha are from Olivelle 2000.)

witnesses and provided advice regarding their veracity and which of the litigants was telling the truth.

The earliest text of the Dharmaśāstric tradition, the 3rd-century-BCE legal code of Āpastamba, follows Kauṭilya in failing to mention the king in the context of court procedure. Gautama (2nd c. BCE) is the first Dharmaśāstric writer who appears to indicate that the administration of justice is the duty of the king (11.19–26). From Manu (2nd c. CE) onward, however, the Dharmaśāstras present the king unambiguously as the sole judge, and it is only when he is absent or cannot attend to court proceedings that another person is appointed to act in his place. Such judges derive their judicial authority from the king. But in none of the ancient texts is this substitute for the king called *prāḍvivāka*.

The earliest extant text to mention a judge or one who resolves a dispute is the *Āpastamba Dharmasūtra* (2.29.5), but it does not use the term *prāḍvivāka*: "Men who are learned, of good family, elderly, wise, and unwavering in their duties (are to oversee) disputes"—*vivāde vidyābhijanasampannā vṛddhā medhāvino dharmeṣv avinipātinaḥ*. Vasiṣṭha (1st c. BCE) simply says: "The king or counselor should run the court proceedings"—*rājā mantrī vā sadaḥkāryāṇi kuryāt* (16.1). The use of the term *mantrin* shows that Vasiṣṭha was unaware of a special term for a judge.

The earliest use of the term *prāḍvivāka* is in the *Gautama Dharmasūtra*. Yet Gautama does not use the term when he discusses dispute resolutions. There he talks only about the king. When there is conflicting evidence the king is expected to consult with people learned in the triple Veda: "If there is conflicting evidence, he should consult those who are deeply learned in the triple Veda and reach a decision"—*vipratipattau traividyavṛddhebhyaḥ pratyavahṛtya niṣṭhāṃ gamayet* (11.25). The *prāḍvivāka* makes an appearance only in Gautama's discussion of witnesses, at the conclusion of which he gives this cryptic nominal sentence (13.26): *rājā prāḍvivāko brāhmaṇo vā śāstravit*. The obvious way to understand this statement is: "The king is the *prāḍvivāka*, or a Brāhmaṇa who knows the *śāstra*." If this interpretation is correct, as I think it is, then the king indeed can be a *prāḍvivāka*, which indicates that this is a descriptive term used for a person performing a particular function in the court. The very next sentence says (13.27): *prāḍvivākam adhyābhavet*, "He (the witness) should present himself to the *prāḍvivāka*." The connection between this office and court testimony is made clear also in the final statement (13.31): *sarvadharmebhyo garīyaḥ prāḍvivāke satyavacanam*, "Of all Dharmas, the most important is to speak the truth before (*or* to) the *prāḍvivāka*." The evidence of Gautama, then, supports the view that the *prāḍvivāka* was not the judge but the person who interrogated witnesses and rendered a judgment regarding their veracity. And that person can be the king himself. Revisiting our discussion of *prāś* in the *Atharva Veda* and *vivaktṛ* in the *Aitareya Brāhmaṇa* in the light of Gautama, we can see that *prāś* pointed not simply to a dispute but to the testimony and interrogation taking place within a dispute. The hope expressed in the

imprecation of the *Atharva Veda* is that the opponent will lose this battle of words, perhaps that he will be tongue-tied when the interrogation takes place.[5]

Manu (8.1–3) presents the clearest and most explicit statements with regard to the judicial authority of the king. It is the king who is normally expected to adjudicate lawsuits. Manu (8.9) goes on to speak of judges other than the king: "When the king does not try a case personally, however, he should appoint a learned Brāhmaṇa to do so"—*yadā svayaṃ na kuryāt tu nṛpatiḥ kāryadarśanam | tadā niyuñjyād vidvāṃsaṃ brāhmaṇaṃ kāryadarśane*. But here nothing is said about the *prāḍvivāka*; the person presiding over the court in the absence of the king is simply referred to as a "learned Brāhmaṇa." Manu (8.79), just like Gautama, introduces the *prāḍvivāka* only within the context of the interrogation of witnesses, not while discussing the person substituting for the king: "When the witnesses have gathered in the court, the *prāḍvivāka* should examine them in the presence of the plaintiff and the defendant, exhorting the witnesses in the following manner"—*sabhāntaḥ sākṣiṇaḥ prāptān arthipratyarthisaṃnidhau | prāḍvivāko 'nuyuñjīta vidhinānena sāntvayan*. The second occurrence of the term in Manu (8.181) is a bit more ambiguous, but I think it is also within the context of witnesses or more precisely the lack of them; in any case, his function is to ferret out the truth in a lawsuit. When a man refuses to return a deposit and no witnesses are available, Manu instructs the *prāḍvivāka* to use spies to get at the truth. The third and final occurrence is at 9.234, and here Manu is dealing with malfeasance on the part of court officials: "If an *amātya* or a *prāḍvivāka* settles a case wrongly, the king himself should settle it and fine him"—*amātyaḥ prāḍvivāko vā yat kuryāt kāryam anyathā | tat svayaṃ nṛpatiḥ kuryāt taṃ sahasraṃ ca daṇḍayet*. The text clearly refers to the miscarriage of justice in the adjudication of a lawsuit. The king should then personally render the proper verdict and punish the court officials, who are identified as *amātya* and *prāḍvivāka*. In all likelihood, here the *amātya* is the judge substituting for the king and the *prāḍvivāka* is the official interrogating the witnesses and advising the judge. Remember that Vasiṣṭha calls the substitute *mantrin*, and Kauṭilya calls the *dharmasthas* adjudicating lawsuits *amātyas*.

The view that the *prāḍvivāka* in these early sources is not a judge but a court official is confirmed by its use in the *Nārada Smṛti* (5th–6th c. CE). In the Mātṛkā section dealing with legal procedure, Nārada advises the king about his judicial function (Mātṛkā 1.29): "Placing the Dharmaśāstra at the forefront and abiding by the opinion of the *prāḍvivāka*, he [the king] should adjudicate lawsuits in the proper order with a composed mind"—*dharmaśāstraṃ puraskṛtya prāḍvivākamate sthitaḥ | samāhitamatiḥ paśyed vyavahārān anukramāt*. Here it is assumed that the king is the presiding judge in a court case. And he is advised by the *prāḍvivāka*, who is, therefore, evidently not the judge but a court official. Here the *prāḍvivāka* appears to parallel the *dharmapravaktṛ* of Manu (8.20), who is also a person responsible for explaining and interpreting the

[5]There is a parallel in the judicial curse tablets of Greece (and elsewhere), which are supposed to make the opponent unable to present his case eloquently in the court: see Gager 1992 (especially Ch. 3, 116–50).

dharma within court proceedings. The second occurrence in *Nārada Smṛti* (Mātṛkā 3.15) is more ambiguous; it tells the *prāḍvivāka* to pull out a splinter from the court procedure just like a surgeon. In other words, he is in charge of making sure that no irregularity or malfeasance takes place in the court. The final occurrence (*Nārada* Smṛti 1.131) lists the king and the *prāḍvivāka* in a list of six individuals who should not be called as witnesses.

The odd man out in the early history of *dharmastha* and *prāḍvivāka* is Yājñavalkya (4th–5th c. CE). He does not use either term. Yājñavalkya, however, subscribes to the view that normally it is the king who adjudicates lawsuits; judicial functions, just as executive power, rest with the king. But, much like Manu, he also says (*Yājñavalkya Smṛti* 2.3) that when the king is unable to do so, he should appoint, along with court officials (*sabhya*), a Brāhmaṇa who knows all *dharmas* (*sarvadharmavit*). No name or title is given to this Brāhmaṇa.

That the *prāḍvivāka* was an ancient institution, even though the term itself is absent in the Vedic corpus, is indicated by what appears to be a younger version of the term: *praśnavivāka*, where *prāś* is changed to the more common *praśna* ('question'). This term is used both in the *Vājasaneyi Saṃhitā* (30.10) and in the *Aitareya Brāhmaṇa* (3.5.6) within the context of the Puruṣamedha or the sacrifice of a human being, where a *praśnavivāka* is offered *maryādāyai*, "for boundary," probably both legal and moral. And Mahīdhara commenting on the *Vājasaneyi* passage explains: *kṛtān praśnān yo vivinakti brūte sa praśnavivākaḥ* "The *praśnavivāka* is the one who explicates, that is, states, the questions." This explanation supports my view that this court official was connected with interrogation and evaluation of evidence, especially witnesses.

By the second half of the first millennium CE, however, the term *prāḍvivāka* appears to have expanded its meaning to include the presiding judge of a court. The term is used with this meaning in the lexicon *Amarakośa* 2.8.5: *draṣṭari vyavahārāṇāṃ prāḍvivākākṣadarśakau* "with reference to the adjudicator (of lawsuits are used the terms) *prāḍvivāka* and *akṣadarśaka*." In Daṇḍin's *Daśakumāracarita* (Kale 1966:191) also the term is used to refer to a judge who decides the outcome of a lawsuit.

In medieval legal digests (*nibandha*), the term is used regularly with reference to the presiding judge in a courtroom. Writing in the 13th century, the jurist Devaṇṇabhaṭṭa, the author of *Smṛticandrikā*, perhaps the best legal digest of the Middle Ages, discusses the *prāḍvivāka* in the section[6] devoted to the judge, that is, the person rendering the verdict in a lawsuit (*nirṇetṛ*). He cites a verse from Bṛhaspati, which states that the person rendering the verdict (*nirṇayakṛt*) is either the king or a learned Brāhmaṇa. Devaṇṇabhaṭṭa identifies this Brāhmaṇa as the *prāḍvivāka* (*brāhmaṇaḥ prāḍvivākākhyaḥ*). He interprets the second part of the term, namely, *vivāka*, as a reference to the rendering of a verdict in a lawsuit. Here is his interpretation of the term:

[6]*Vyavaharakāṇḍa* (Srinivasacharya 1914:29–42).

> Accordingly, Bṛhaspati himself states: "He is the judge (*prāḍvivāka*) because he asks questions and counter-questions, and because he speaks at the outset (*prāk*) and affectionately (*priya*)." [*Bṛhaspati Smṛti* 1.1.69] The term *prāḍ* comes from the fact that he questions the plaintiff and the defendant. The term *vivāka* comes from the fact that he especially (*viśeṣa*) pronounces (*vakti*) the verdict.

A few conclusions flow from the above investigation. First, the terms *dharmastha* and *prāḍvivāka*, although they share some characteristics such as being involved in dispute resolutions and court procedures, refer to two very distinct institutions. The *dharmastha* is a government official, part of the Kauṭilyan state bureaucracy, permanently located in villages and towns and responsible for a variety of functions relating to the maintenance of public order and morals and the resolution of disputes. The *prāḍvivāka*, on the other hand, functions solely within the confines of a court and is responsible for interrogating witnesses. Second, both terms become extended to include broader judicial functions. The later redactor (perhaps in the late 2nd c. CE) of Book 3 of the *Arthaśāstra* saw him as a presiding judge, but provides for a bench of three *dharmasthas* in adjudicating lawsuits.[7] When the *prāḍvivāka* came to be considered a presiding judge is unclear, but it must have happened some time after Nārada, that is the middle of the first millennium CE.

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[7] Perhaps the requirement of three assessors called *sabhya* in the Dharmaśāstric descriptions of court personnel is a reflection of the Kauṭilyan norm of three *dharmasthas* for adjudicating lawsuits.

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Old English Riddles, Comparative Poetics, and the Authorship of *Beowulf*

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In the recent cleaning of the bowels of the BM, among artifacts in very poor repair was found a portable pipe organ whose documentation assigns it to the late sixteenth/early seventeenth century. During discussions (still ongoing) as to whether or not it warrants restoration, the pipes themselves were examined and found in some instances to contain wadded paper inserted to adjust the pitch to the proper tuning. Five such scraps were found, all of which appeared on first examination to be approximately of the same age as the organ itself. The papers have been assigned to the museum laboratory for further study and analysis; any discussions of these finds (including the following) must thus be seen as preliminary.

All fragments contain writing; four of these are in secretary hand. The last is of particular interest to Anglo-Saxon studies. This scrap is approximately four inches by six inches, ragged on all sides. The curiosity of this artifact is that the script is in medieval insular minuscule, and the language is Old English. The ink was originally black, now faded inconsistently according to the exposure to air of the crumpled paper. Until preservation has been completed, no facsimile of any of these fragments will be available. However, the reproduction below represents a rough approximation of the text of the Old English document.

1 The Old English text

eft onhƿyrfed · ic bealcette min	i
beot bald ymb beorsele ðonne min codd aƿeccþ	ii
ætƿintres hinsið · æftemest healdende ic hoppe	iii
tte hoppette · stefnas þara gesplotted spiliaþ m	iv
idgrenum · cuum gelic we bylgaþ · buccum gelic	v
we blætaþ · aceled ingrundƿong greotende we gr	vi
ædaþ sƿa agalaþ preostas ætgædrung bi blodorc	vii

2 Edition and translation

The fact that there is no apparent structure in the format follows Old English convention, in which the scribal desire to make the most use of expensive parchment often results in words separated internally (and not necessarily along morpheme boundaries) by the end of a line. (See *hoppe-tte* ll. 3–4, *m-id* 4–5, and *gr-ædaþ* 6–7). Alliterative patterns indicate that the text is poetic in structure. I have thus rendered it below in the standard editorial form for Germanic poetry, with the four-stress alliterative pattern broken by a medial caesura. I have also inserted spaces between prepositions and the nouns they govern where the scribe has written these together (a common, although not consistent, feature of manuscript practice across medieval languages). I have left the pointing as in the manuscript but provided standard English punctuation in the translation. Judging by both the gap at the beginning of the exemplar and the pattern of alliteration, the first half-line of the poem is missing.

. . .	*eft onhwyrfed ·*	1
ic bealcette min beot	*bald ymb beorsele*	2
ðonne min codd aweccþ	*æt wintres hinsið ·*	3
æftemest healdende	*ic hoppette hoppette ·*	4
stefnas þara gesplotted	*spiliaþ mid grenum ·*	5
cuum gelic we bylgaþ ·	*buccum gelic we blætaþ ·*	6
aceled in grundwong	*greotende we grædaþ ·*	7
swa agalaþ preostas	*æt gædrung bi blodorc ·*	8

A rough translation reads:

. . .	turned backwards.	1
I belch my boast	bold around the beer-hall	2
when my cod awakens	at winter's departure.	3
Holding behindmost,	I hop, hop.	4
The voices of the speckled	play with (those of the) green.	5
Like cows we bellow,	like goats we bleat,	6
chilled in the bottom of the pond,	complaining we croak,	7
like priests chant	at the marriage-gathering around the blood-goblet.	8

3 Literary analysis

The genre of this poem is clearly allied with the Exeter Book riddles. It appears to be a fertility poem spoken by an amphibian aroused by the coming of spring.[1] Although

[1] We might be tempted to associate this amphibian with the horny toad, but it is not native to England; see "Horned toad (Short-horned lizard)."

the conundrum as it stands does not give a definitive solution, I tentatively reconstruct the first, missing half-line as *eggorf is min nome*; the space left blank would both allow and be filled by this phrase. The opening then would be parallel to Exeter Book riddle no. 23, which opens, *agob is min noma*.[2] The identical second half-line in both poems gives the answer to the riddle: the name is spelled backward in the first half-line. While the familiar riddle thus supplies *boga* 'bow', this new find presents *frogge* 'frog'. As in the *agob* poem, the reversal of the word allows the alliteration of the initial vowel with *eft* in the second half-line.

The frog awakes with the rains of spring, and his *codd* ('bag? scrotum?'—precursor of Early Modern Eng. *cod*piece) is aroused. He holds (a female frog) from behind and hops repeatedly, presumably in sexual excitement. The repetition of *hoppette* in this line is—to the extent of my knowledge—unique in Old English poetry. The poet seems to be experimenting with a new technique; if the poem can be dated to the Anglo-Saxon period (on which, see below), this device never achieved popularity. Speckled and green frogs allow their voices to mix together in playful song. This vocal union metaphorically reproduces the physical conjunction of "our" frog and the object of his lust. The next line (*cuum gelic we bylgaþ · buccum gelic we blætaþ*) is poetically hypermetric, demonstrating the exuberance of the sexual connection. The croaking of the frogs is rendered by the (at least semi-)onomatopoeic *greotende*. The final line is clearly ironically intended: the frogs' croaking during their mating echoes the chant of priests around the sacrificial cup (blood-goblet) at a marriage ceremony. This crass comparison of mating frogs to human marriage parallels many of the cruder sexual references in other Exeter Book riddles.

4 Posing the questions of dating

The fact that the poem is written on paper rather than parchment precludes the possibility that it could predate by much the pipe in which it was found. Analysis currently in progress will determine the age of the paper upon which this poem is written and the ink used. Assuming that results will match those of the preliminary examination, what we have here is an Old English composition written on paper during the Early Modern English period. The question to be posed then is whether the text itself can be dated earlier—perhaps even back to the Anglo-Saxon period—or whether it is an original work by an Elizabethan scholar of Old English.

The latter option is hardly to be ruled out. Laurence Nowell and his student William Lambarde were extremely active in Anglo-Saxon studies in the second half of the sixteenth century. Nowell compiled his (unpublished) *Vocabularium Saxonicum* ca. 1565; he was not above including here entries that occurred only in his own back-formations. Lambarde's translations into Old English of selections from the Latin *Quadripartitus* (a twelfth-century collection of Anglo-Saxon laws) were skillful

[2] The manuscript reads *agof*, a newer form of *agob*. (See discussion of these forms in Krapp and Dobbie 1936:192 and 334.) I have reverted to the older form solely for the sake of transparency.

enough to convince legal historians William Thorpe, Reinhold Schmid, and even the great Felix Liebermann that Lambarde's renditions were original vernacular compositions (Wormald 1997). These two scholars are generally credited with the rediscovery or, in Rebecca Brackmann's words, "the invention" of Anglo-Saxon (Brackmann 2012). Either of them could easily have tried his hand at Old English composition outside the genre of laws.

Textual analysis, however, provides two reasons to favor the theory that the text was copied from a much-earlier original. The first is the half-line missing at the beginning of the poem. I cannot conceive of an explanation for why a putative Early Modern author would omit the beginning to his riddle, particularly since it provides the solution. Far more likely, in my opinion, is that the exemplar—for reasons lost in time—itself was missing this half-line, and the later scribe simply copied what he had.

The second reason is that strong similarities exist between this composition and a well-known, albeit far earlier and considerably distant, predecessor.

5 The R̥gvedic parallel

The content of the Old English riddle matches to an extraordinary extent that of the well-known R̥gvedic "Frog" hymn 7.103. The relevant portions are reproduced below, followed by Stephanie Jamison and Joel Brereton's translation:

1. ... *vā́cam parjányajinvitām   prá maṇḍū́kā avādiṣuḥ*
2. *divyā́ ā́po abhí yád enam ā́yan   dŕ̥tiṃ ná śúṣkaṃ sarasī́ śáyānam*
3. ... *akhkhalīkŕ̥tyā* ...
4. *anyó anyám ánu gr̥bhṇāti enor* ...

   ... *maṇḍū́ko yád abhívr̥ṣṭaḥ kániṣkan   pŕ̥śniḥ sampr̥ṅkté háritena vā́cam*

6. *gómāyur éko ajámāyur ékaḥ   pŕ̥śnir éko hárita éka eṣām*
7. *brāhmaṇā́so atirātré ná sóme   sáro ná pūrṇám abhíto vádantaḥ*

(van Nooten and Holland 1994)

1. ... [T]he frogs have spoken forth a speech quickened by Parjanya.
2. ... When the heavenly waters have come to him, lying like a dried leather bag in the pond, ...
3. ... saying "akhkhala" ...
4. One of the two grasps the other from behind, ...

   ... when the frog, rained upon, has hopped and hopped, and the speckled one mixes his speech with the green one.

6. One of them has a cow's bellow, one a goat's bleat; one is speckled, one green. ...
7. Like brahmins at an "Overnight" soma ritual, speaking around (a soma vessel) full like a pond, ...

(Jamison and Brereton 2014:1013)

Three hypotheses can be postulated for the similarities in these texts. The first is that both were created independently. I reject this possibility due to the parallel statements that the speckled and green frogs mix their voices (although this description is not necessarily exclusive to these two territories), and more particularly the non-trivial comparison that some frogs bellow like cows and others bleat like goats. Furthermore, both poems strikingly compare to the croaking of the frogs the chanting of religious figures around a bowl (in the R̥gvedic text, the *soma* vessel and in the Old English text, the *blodorc* 'blood-goblet'—that is, the communion cup). The second possibility is that the R̥gvedic hymn was known in Anglo-Saxon England and adapted to contemporary mores. Neither historical nor archaeological evidence indicates any connection between the Indian subcontinent and the British Isles at this early date, and thus this option must also be ruled out.

The only remaining possibility I can see, unlikely as it may seem, is that these two poems are reflexes of an earlier, Indo-European original, albeit adapted by time and custom. Common remaining themes abound: the sexual arousal of frogs when spring rains awaken them, the variegated colors of the frogs (typical of both India and England), their mating habits (copulating from behind), and—most important in terms of non-trivial similarities—the comparison to the chanting of religious officials at fertility rites. These textual similarities are supported by both zoological and linguistic parallels.

6 Comparative zoological analysis

Stephanie Jamison has provided a convincing examination of the biological underpinnings to RV 7.103 (Jamison 1991–2). Her arguments are summarized in the introduction to the hymn in the new translation (Jamison and Brereton 2014:1012–3), from which the following citations are taken. (I thus mark the latter citations [R] to avoid confusion between sources.) Jamison points out that, typically, "the different cries serve to attract conspecific females to the appropriate male." ([R]) Thus some frogs bellow like cows while others bleat like goats. Further, "[t]he actual mating posture of frogs is described in verse 4 [in both the R̥gvedic and Old English verse]: it involves the male approaching the female from behind and grasping her firmly for as long as it takes—which for some species can be quite awhile (days or weeks)." ([R]*ibid.*) Finally, in sections of the R̥gvedic hymn involving a resemblance of the frothing of boiling milk involved in the ritual to discharge of eggs after mating, "the frogs are seen as assuring increase for us as well." ([R]*ibid.*) Although the Old English poem does not include such a graphic comparison, the facts that priests are chanting at a marriage ceremony similarly ties the image of human fertility to that of frogs.

7 Comparative linguistic analysis

The lack of obvious matching vocabulary between these two poems should not necessarily argue against their connection, as over time many words could have been replaced by both changing tastes and concomitant emerging poetic styles. The single shared reflex—of PIE **g^{u}ou-* (RV *gómāyur*, OE *cuum*, each in l. 6)—should not be seen as more than continued use of common terminology.

However, two peculiarities exist in the Old English version that can be explained with reference to the R̥gvedic hymn. First is the otherwise unknown repetition of the verb *hoppette* 'I hop' in l. 4. In the same context, the *R̥gveda* uses *kániṣkan*. This is an intensive reduplicated form of the root *skand-* 'leap' (Whitney 1885:190–1 and 1889: §1002g, h): the Indic frog repeatedly leaps in ecstasy.[3] Inherited PIE reduplication often disappears in Germanic: for example, preterite forms have lost their reduplicators. My hypothesis here is that the Old English poet has substituted repetition of the verb for a reduplicated form in the original source.

The second oddity in the Old English text is striking more for its divergence from natural science than for any linguistic anomaly. In l. 3, the poet states that the frogs are *aceled* 'chilled' in the *grundwong* 'bottom of the pond'. One technique for modern geothermal heating is to create a loop that circulates air warmed at the bottom of a pond, as the temperature there remains relatively constant throughout the year ("Geothermal: How it works"). Even in England, even in an English spring (if the phrase is not oxymoronic), a frog is unlikely to be chilled at the bottom of a pond. Tellingly, the R̥gvedic hymn uses in the same line the call of the Indian frog: *akhkhala*. This may have been onomatopoeic to the Sanskrit ear, but not to the West Germanic, whose frogs croak *ribid* in English or *kwaak* in Dutch. The Sanskrit frog may, however, have diverged less from his PIE ancestor than the Anglo-Saxon. My hypothesis here is that the poet replaced an instance of onomatopoeia like *akhkhala* with the similar-sounding OE *aceled*, fitting it to the syntax. What he crucially overlooked was the clash with physiological verity.

8 To conclusion and beyond

If we accept the hypothesis that this find represents an Early Modern English copy of a much earlier Old English poem, the text itself is far more precious than the artifact. The verse, as discussed above, seems to represent the reflex of an ancient tradition, dating back to a time when Germanic and Indo-Iranian had not yet separated linguistically, or at least when they were still in close areal contact. This find presents an important addition to our knowledge of the transmission of Indo-European poetic tradition.

[3] The R̥gvedic intensive often, but not always, has an iterative or repetitive value; see discussion in Jamison 1997:51–2.

This riddle also, however, presents some interesting lexical comparisons for *Beowulf* scholars. A well-recognized fact about our only complete Old English epic is that the vocabulary is both unusual and often difficult. Notable in this respect is that two of the twenty-nine non-grammatical lexemes used in this new find appear elsewhere almost exclusively in *Beowulf*: the epic includes the only other attestations of *grundwong* (ll. 1496, 2588, 2770) and four of the seven occurrences of *beorsele* (ll. 482, 492, 1094, 2635) (Healey n.d.:s.vv. and Fulk, Bjork, and Niles 2008: Glossary s.vv.). I thus present the extremely tentative suggestion that perhaps this verse was composed in its present form by one of the last redactors of *Beowulf*; even more tentatively we might augment the list of his output to include—on the basis of stylistic comparison to the *eggorf* opening if my reconstruction is correct—the *agob* riddle. However, it is best to let conjecture rest until it has been unequivocably demonstrated that this new find is not a κοάξ—or, in the form it would take post-Grimm's Law and after accent retraction, a *hóax*.

homo loquens is the original *homo ludens*
(Watkins 1973:107)

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Rudra: 'Red' and 'Cry' in the Name of the Young God of Fire, Rising Sun, and War

ASKO PARPOLA

1 Introduction

Stephanie Jamison's gripping book, *Sacrificed Wife, Sacrificer's Wife* is an exemplary and penetrating study of Vedic religion. Focusing on the role of women in ancient Indian rituals, she has not shunned topics that others might have found uncomfortable. There is a thorough discussion of the textual descriptions of the enacted "sacred marriage" between the killed chief victim and the sacrificing king's chief queen in the Vedic horse sacrifice. In associated dialogues the partners are mocked or scolded in obscene language (Jamison 1996:65–88). Jamison (1996:96–8) also analyzes in detail the parallel actions on the *mahāvratá* day at the end of the year-long sacrificial session. On this occasion a bard (*māgadhá-*) or a celibate student (*brahmacārín-*) and a prostitute (*puṃścalī-* or *puṃścalū́-*) scold each other in erotic terms and perform sexual intercourse.

The *māgadhá* and *puṃścalī* figure in *vrātyastomas* as well. Vrā́tyas were bands of raiders worshipping the god Rudra (see Falk 1986). Their expeditions were introduced and concluded with *vrātyastoma* rituals. While sexual intercourse and open bloodshed are avoided in most Vedic rituals, they characterize the *aśvamedhá*, the *mahāvratá*, the *vrātyastoma* and a few other Vedic rituals such as the building of the fire altar (*agnícayana*) that culminates on the *mahāvratá* day, and the royal consecration (*rājasū́ya*). Jan Heesterman (1962, 1967) has convincingly shown that these "*vrā́tya* rituals" actually represent an earlier, "pre-classical" phase of development in the history of Vedic ritual.

Combining the study of archaeology, historical linguistics, and religion, I have long explained the "*vrā́tya* rituals" differently from the "unilinear" view of my colleagues (cf. Falk 1986:50). In my opinion, the "*vrā́tya* rituals" represent the "Atharvavedic" tradition that existed in the Indus Valley before the arrival of the Rigvedic tradition, and the "classical" Vedic ritual came into being when these two traditions fused together. The earlier Indo-Aryan speakers came to South Asia between 2000 and 1700 BCE, worshipped mainly the Aśvins and their early doubles, Mitra and

Varuṇa, and spoke a dialect that preserved PIE *l. The Rigvedic Indo-Aryans came to the Indus Valley between 1500 and 1200 BCE, worshipped mainly Indra with a soma cult that resembled the *yasna* ritual of the Zoroastrians, and spoke a dialect where PIE *l had merged with PIE *r. The first wave of Indo-Aryans was more exposed to the substratum influence of the pre-Aryan population, the Late Harappan people who spoke an early Dravidian language and had been in contact with West Asia. The "sacred marriage" of the Vedic horse, human sacrifices, and the related *śākta* Tantric cults are likely to go back to the Indus Civilization. An Indus seal from Chanhudaro depicts a bison bull mounting a human priestess. The buffalo sacrifice, until recently prevalent all over Dravidian-speaking South India, was connected with the yearly "marriage" of the guardian goddess of the village. (See Parpola 2015.)

The present paper discusses the etymology of the divine name *Rudrá*. The views currently held valid need to be revised in the light of the better understanding we now have of Rudra's character. To start with a topic discussed by Stephanie Jamison, *Rudrá Tryàmbaka* is worshipped at crossroads with the *Traiyambakahoma* ritual at the end of the *Sākamedhá*, the last of the "four-monthly" *cāturmāsyá* sacrifices. This is a send-off rite for Rudra, but may be used to find a husband for a maiden who seeks one. *Apūpá* cakes are thrown into the air, and then thrown at the sacrificer and his husband-seeking daughter. Finally, cakes are packed as provisions for Rudra and hung onto trees, while Rudra is asked to go away to the northern mountains without harming the participants.

Tryàmbaka as Rudra's name is attested in RV 7.59.12 (a verse which is a later addition to this hymn), but *Tryàmbaka* is not included in the lists of Rudra's names in the *Brāhmaṇa* and *Sūtra* texts. While it has long been agreed that the best explanation of *Tryàmbaka* is 'possessing three mothers', it has proved difficult to identify these three mothers (cf. Hopkins 1915:220; Arbman 1922:291–7). Jamison (1996:241–5) points out that the *Traiyambakahoma* has many elements in common with the horse sacrifice and the rites of the *mahāvratá* day. A mantra invoking three "mothers" in the vocative (*ámbe ámbāly ámbike*) accompanies the entrance of the three other queens when the enacted copulation between the sacrificial victim and the chief queen is beginning. I argue below that Rudra is born at the "sacred marriage", which is introduced in this fashion.

2 Mayrhofer's views on the etymology of the name Rudra

The second edition of Manfred Mayrhofer's etymological dictionary of Old Indo-Aryan is a highly reliable reference tool giving currently valid etymologies for Sanskrit words. Mayrhofer's opinions are generally very sober but can sometimes be challenged. This is the case with the article on *rudrá-* (Mayrhofer 1986–2001:2.452–3). Here Mayrhofer sticks to the views that he presented in the first edition of this

dictionary (1956–1980:3.66–7), some of which go back to his paper "Der Gottesname Rudra" (1953).

As the most attractive etymology for ***rudrá-*** Mayrhofer singles out the connection with the neuter noun ****ródas-***, which can be assumed to have existed on the basis of the parallel of such word pairs as ***ugrá-*** : ***ójas-***, ***citrá-*** : ***cétas-***. The word ****ródas-*** is attested (from the Rigveda onwards) primarily only in the elliptic dual ***ródasī*** 'heaven and earth' (besides this nominative-vocative-accusative other dual case forms also occur in the Rigveda: gen. ***ródasos*** and, secondarily, gen. ***ródasyos***, ***ródas(i)yos***, dat. ***ródasībhyām***; these latter forms are due to the shift of the word to the ***devī́***-type, whence also the nominative singular ***ródasī***; cf. Thieme 1978:33–4). This theory involves ***rudrá-*** in the question of the meaning of ****ródas-***. Mayrhofer himself (1953:146–8) had taken it to denote 'heaven', and interpreted ***rudrá-*** to mean 'heavenly', which would suit its use as an epithet of various divinities (the Aśvins, Agni, Indra, Mitra, Varuṇa, the Maruts, and the ***spáśaḥ***) in the Rigveda, who are also called ***divyá-***, ***diviksayá-***, and the like.

Later, however, Mayrhofer accepted the criticism of Wüst (1955:21–2), who denied that ***rudrá-*** is used as an adjectival epithet of the gods enumerated, but instead denotes the god Rudra mentioned as an expression of the henotheism typical of the Rigveda. Instead of 'heaven', Wüst chose 'earth' as the meaning of ****ródas-***, and connected ***rudrá-*** with Lat. ***rudis*** 'unwrought, crude' and ***rullus*** (? < ****rudlós***) a word attested only in glosses and explained as ***mendicus*** 'beggar' or *χωρική, ἀγροῖκος* 'rustic'. Mayrhofer regards this interpretation as likely in the first edition of his dictionary (1956–80:3.66–7, 77), but cites it more neutrally in the second edition, though it is still clearly his preferred choice, adding that others have understood ****ródas-*** to mean 'heaven' or 'crying, weeping' (from ***rud-***, ***róditi*** 'to cry').

The latter alternative, he pointed out, belongs to the old explanation of Rudra as a 'Roarer' or 'Howler', first proposed by Albrecht Weber (1851:19–20) and then adopted by many other scholars (see Arbman 1922:282–3). A major reason was Rudra's association with the Maruts, the Rigvedic storm-gods who are called ***rudrā́ḥ*** (RV 5.60.2; 10.92.6) or ***rudríyāḥ*** (RV 3.26.5), and "sons of Rudra" (***rudrásya sūnávaḥ***, RV 1.85.1; 6.50.4; 8.20.17), while Rudra is called "the father of Maruts" (***pitar marutām***, RV 2.33.1). Mayrhofer (1953:141) notes, however, that Rudra's nature as a storm god is questionable. Harry Falk (1986:63–5), indeed, has made it quite clear that in their nature the Maruts are quite different from Rudra and his destructive military troops; the Maruts accompany Indra, bring rain and fertility to people, cattle, and the fields. Mayrhofer (1953:141) also points out that in Sanskrit the root ***rud-*** is never used of the 'roaring' or 'howling' of storms, but only of 'weeping' or 'lamenting'; he concludes that ***Rud-rá-*** should therefore go back to an earlier period when ***rud-*** still had a meaning like Lat. ***rŭdere***, which is used of the loud 'bellowing' or 'braying' of animals. Paul Thieme (1978:43 n. 34), on the other hand, points out that rules of word formation forbid deriving ***rudrá-*** from the ***seṭ***-root ***rud-i-*** 'to cry, weep'.

Thieme's (1978:43 n. 34) proposal for deriving ***Rudrá-*** from ****dru-dra-*** 'tree-breaker'

is the last but one of the etymologies that Mayrhofer (1986–2001:2.453) mentions in the final version of his dictionary; in my opinion Thieme's etymology does not reflect any central aspect of Rudra's character. Mayrhofer finishes with an emphatic dismissal of the derivation ***rudrá-*** < ****rudhrá-*** 'red'.[1] His rejection is based on the following considerations (Mayrhofer 1953:142–3). 'Red' in Vedic is not †***rudrá-*** but ***rudhirá-***, and several assumptions are needed to interpret ***rudrá-*** as 'red'. One would have to assume that Proto-Indo-Aryan once had a ****rudhra-*** 'red' without ***-i-***, and that this then lost its aspiration in a deaspirating dialect; or that ***rudrá-*** was borrowed from PIr. ****rudrá-***, for which there is some quite uncertain evidence, the best being Shughni ***rūrv*** 'light red', which Morgenstierne (1974:68) derives "through ****ruvr*** or ****rurδ***" from ****rudra***. Mayrhofer found both assumptions difficult to accept, although in 1953 he mentioned deaspiration as a relatively frequent phenomenon in Middle Indo-Aryan.[2] Thieme (1978:43 n. 34) agreed, stating that phonology forbids connecting ***rudrá-*** with ***rudhirá-***.

Vedic Rudra is the predecessor of the Hindu god Śiva, and Ved. ***śivá-*** 'kindly, gracious' is euphemistically used of the dreaded god Rudra already in the Rigveda. From Alfred Ludwig (1900:8–9) and Sten Konow (1906:4.279) to R. N. Dandekar (1953:134–5), several scholars have thought that Ved. ***śiva-*** when applied to Rudra goes back to his original Dravidian name denoting 'red', attested in Tamil ***civa-*** (the affricate ***c-*** may be pronounced as a sibilant) 'to redden, to be red, to become angry', ***civappu*** 'ruddiness, red color; anger'. But the Proto-Dravidian root from which these Tamil words are derived is ****ke-*** 'red', and the affrication ****ke-*** > ***ce-*** took place only in Tamil-Malayalam, and the derivative ***civa-*** is found in Tamil alone. This was pointed out already by Mayrhofer (1953:143–5), and therewith he had, in the opinion of Wüst (1955:13–4), definitively disposed of the interpretation of Rudra as the 'red' god.[3]

3 Primary etymology of Rudra's name: **rudhrá-* 'red'

Ved. ***rudhirá-*** is not attested in the Rigveda, but is used from the *Atharvaveda* onwards both as an adjective meaning 'red, bloody' (in AVŚ 5.29.10 it is an epithet of a flesh-eating demon, ***piśācá-***) and as a neuter noun meaning 'blood' (in AVP 5.10, where it also means 'red' as the color of the ***surā***-beer). In Classical Sanskrit ***rudhira-*** is further used in the masculine as the name of the planet Mars. Mayrhofer (1986–2001:2.453–4) assumes that Proto-Indo-Aryan had ****rudhra-*** from PIE *$*h_1rud^h$-ró-* 'red' (whence Gk. *ἐρυθρός*, Lat. ***ruber***, Russ. ***rëdryj***, Toch. A ***rtär*** B ***rätre***); the change into

[1]Mayrhofer 1986–2001:2.453: "Abzulehnen ist Herleitung aus ****rudhrá-*** 'rot' (s. ***rudhirá-***); vgl. Lit. in KEWA III 67, 344."

[2]Mayrhofer 1953:142 n. 7. Actually Old Indo-Aryan aspirated consonants mostly became *h* in MIA, cf. von Hinüber 2001:159–64.

[3]Pisani (1954) accepted Mayrhofer's argument, but suggested that the Aryans might have borrowed the Dravidian word in the form ****kiva-*** and that it became ***śiva-*** in Indo-Aryan. This attempt to salvage the Dravidian hypothesis is based on the erroneous assumption that the affrication of PIE ***ḱ** did not take place before the Aryans had come to India.

rudh-i-rá- is explained (since Wackernagel 1905:61, where a question mark has been added) as a contamination with the compound form *rudh-i-* assumed in the demon name *rudhi-krá-* (possibly 'blood-scattering' or 'blood-bestrewed') attested just once, in RV 2.14.5). I would like to propose considering *-i-* as a *svarabhakti* vowel, as in Ved. *candrá-* 'shining' > *candira-* (lex.) (cf. Wackernagel 1896:1.58), or Ved. *vájra-* > Pali *vajira-*. Such an anaptyxis is expected to take place in adjusting the complex syllable structure of Indo-Aryan to the Dravidian substratum, *cantiram* being indeed the regular counterpart of Ved. *candrá-* in Tamil.

Mayrhofer (1953:142) acknowledged that Pischel's (1886:120; 1889:57–8) explanation of Rudra as 'red' would semantically fit very well ("Sachlich wäre diese Erklärung durchaus passend . . ."). The Vedic texts indeed connect Rudra with the color red. In addition to the Rigvedic references to Rudra as *babhrú-* (2.33.5, 9, 15) and *aruṣá-* (1.114.5) comes for instance TS 4.5.1.2 *asaú yás tāmró aruṇá utá babhrúḥ*, with three adjectives all denoting '(dark) red', and *vílohita-* 'deeply red' in TS 4.5.1.3 and *babhlusá-* 'brownish' in TS 4.5.2.1.[4] The primary etymology of Rudra's name is in my opinion **rudhra-* 'red', preserved in its *svarabhakti*-form *rudhira-*, with which already Böhtlingk and Roth (1855–75:6.387) were inclined to connect Rudra.

For Albrecht Weber (1851:19–25) Rudra was a prototype of the terrible and of rage. Weber assumed Rudra to be not only the howling god of the storm with the Maruts as his armies, but also the flaming fire, which is hungry and 'howls' destructively. Rudra's arrows, which are frequently mentioned, Weber (1851:32) thought to be partly lightning bolts and flames, partly diseases and epidemics.

Stephanie Jamison (1991:296–7) notes that "*Rudra* is in fact constantly identified as *Agni*. MS I.6.6 *eṣá hí rudró yád agníḥ* 'For this Rudra is (really) Agni.'[n. 293: Also I.6.7, I.6.11; II.1.10; III.9.1, etc. . . .] . . . And indeed S. Insler has suggested (pers. comm.) that Rudra was originally just a fearful epithet of Agni, as it is several times in the RV, e.g. IV.3.1 *á vo rájānam adhvarásya rudrám, hótāraṃ satyayájaṃ ródasyoḥ / agním* . . . '(Him) the king of your ceremony, the *fierce* one, the truly worshipping Hotar of the two worlds, *Agni* . . . ' "

I agree with the view, stated already by Hillebrandt (1929:2.446–7), that Rudra primarily symbolizes the fire in its fierce, destructive aspect. This red element was an integral part of military raids, as graphically described in the Old Tamil poetry quoted at the end of the paper. The *vrā́tyas* and *vrātī́nas*, the raiding bands whose leaders personified Rudra, were also dressed in red turbans and red clothes (*lohitoṣṇīṣā lohitavāsaso*) when they performed their sorcery rites with the purpose of killing the enemy (*Ṣaḍviṁśa-Brāhmaṇa* 3.8.22 and *Lāṭyāyana-Śrautasūtra* 8.5.8).

Rudra is connected with the sacrificial fire only as *Agní Sviṣṭakŕ̥t*, recipient of the final portion of the offering: this, like the fact that sacrificial leftovers belong to Rudra, seems to indicate that Rudra ends the sacrifice (cf. Hillebrandt 1929:2.434–5). This is probably connected with the fact that Rudra shot Prajāpati in punishment for

[4]Cf. Arbman 1922:274–5; Hillebrandt 1929:2.449, 456; Dandekar 1953:122.

his incest. For Yajña, 'Sacrifice', figures as a double of Prajāpati in the myths about Prajāpati's incest. Actually, Prajāpati/Yajña symbolizes the whole (old) world, which Rudra brings to an end. Thus he already has the role of Hindu Śiva as the destroyer of the world.

This brings us to the second major natural phenomenon that is red and that Rudra in my opinion symbolizes, namely the rising sun. In RV 1.114.5, Rudra is called "the *ruddy* boar of heaven" (*divó varāhám aruṣám*): when the sun rises in the horizon, it is in contact with the earth, and pigs dig up earth; the boar also stands for *manyú-* 'wrath, rage' (TB 1.7.9.4; Hillebrandt 1929:2.433). According to *Kaṭha-Āraṇyaka* 2.89 "Rudra the great hero is yonder sun" (*asaú vá ādityó rudró mahāvīráḥ*); in KĀ 2.100 "Rudra . . . has the color of the sun" (*rudráṃ . . . ādityavarṇam*) (cf. Jamison 1991:187–8). The 13th book of the *Śaunaka Atharvaveda* contains four long hymns to Rohita, 'the Ruddy' rising sun (the name is punningly connected with the root *ruh-* 'to ascend'). Rohita and Rohiṇī 'the Red (female)' form an archetypal couple equated with the king and the queen in AV 13.1. Rohiṇī may denote the Dawn, but it is also the name of the earliest new-year star (Parpola 2013).

Vedic texts have many variants of the myth according to which the creator god Prajāpati desired his own daughter, usually identified with the Dawn (Uṣas), and committed incest with her. In punishment for this evil deed, Prajāpati was pierced with an arrow by Rudra, the cruel god. (See Deppert 1977; Jamison 1991:289–97.) In the AB 3.33, this myth is transferred to calendrical asterisms, Prajāpati's daughter being the star Rohiṇī (the large red star Aldebaran). When the sun in its yearly cycle "unites" with the new-year star,[5] at that very moment the "old sun/old year" dies and simultaneously the "new sun/new year" is born. Instead of the yearly cycle, we can speak of the daily cycle. The "old sun" here is the "night sun" or the night/darkness which unites with the Dawn but is killed by the "new sun," i.e. the rising sun, Rudra, with the rays as its arrows.

This cosmic drama is enacted in the *aśvamedhá*, where the sacrificial horse (representing the sacrificing king and the sun) victoriously goes around the world with a military escort for one year. At the end of the year the horse is killed and made to lie with the king's chief queen in "sacred marriage." The corresponding "sacred marriage" on the *mahāvratá* day also takes place at the end of the sacrificial year.

Rudra as the 'new sun' is also a newborn baby: after the Kṛttikāḥ (Pleiades) had replaced Rohiṇī (Aldebaran) as the new-year star(s) (around 2400 BCE, in Harappan times), Rudra became the baby of the Pleiades. Weber (1850:269) pointed out that the name Kārttikeya of the war-god is to be connected with the *kārttika*-month of the autumn, when the war expeditions were principally undertaken.[6] The Kṛttikāḥ as

[5]The "new-year star" in Vedic astronomy was the asterism with which the sun was in conjunction at the vernal equinox.

[6]Weber (1850:269) cites *Pañcatantra* 3.36 *kārttike vātha caitre vā vijigīṣoḥ praśasyate / yānam utkr̥ṣṭavīryasya śatrudeśe na cānyadā //*.

divine "mothers" are the demoniac disease goddesses that follow the war-god Skanda (Rudra's Hindu successor) on his expeditions, and who along with Skanda-graha (equated with the planet Mars) hanker after the blood of newborn babies. Blood (*rudhirá-*) is red (*rudhirá-*). Blood is Rudra's favorite drink (cf. Arbman 1922:270–3; Hillebrandt 1929:2.437; Dandekar 1953:121–2). The blood of the horse is assigned to Rudra in the *aśvamedhá* (cf. TS 1.4.36 ... *rudrám lóhitena* ...), and in the *śūlagava* sacrifice, Rudra and his hosts get blood as a *bali*-offering. Blood is naturally associated with Rudra in his capacity as the blood-shedding god of war.

The construction of the 'fire altar' (*agniciti*) made of 10,800 bricks (the number of "hours" in a year) is finished on the *mahāvratá* day. The altar reconstructs the body of the creator god Prajāpati, who was exhausted in creation. Immediately after the altar's completion, 425 ghee libations are offered into fire to Rudra, while the *śatarudriya* litany is recited (ŚB 9.1.1.1–44). This litany (in MS 2.9.1–9; KS 17.11–6; KapS 27.1–9; TS 4.5.1–11; VSM 16; VSK 17), translated and discussed by Weber (1851:14–47) and Eggeling (1882–1900:4.150–5), gives a good idea of Rudra as the cruel deity of robbers, raiders, and hunters, armed with bows and arrows, swords, and other weapons. The *vrātyastoma* and *aśvamedhá* texts also describe the brutalities of the sodalities of young warriors, whose leaders personify Rudra (see Falk 1986).

4 Secondary etymology of Rudra's name: *rud-* 'to cry, weep'

For the loss of aspiration in **rudhrá-* > *rudrá-* it is not necessary to assume that this took place in a deaspirating dialect of Indo-Iranian. Hermann Oldenberg (1917:216–7) suggested that the expected **rudhrá-* 'red' was transformed into *rudrá-* in order to make the name similar to *indra-*, perhaps to avoid the association with the root *rudh-* 'to obstruct, impede, restrain, prevent'. I prefer thinking that the reason was the wish to associate the god's name with the root *rud-* 'to cry, to weep', in its actual meaning of 'weeping'. This is the etymology of the *Brāhmaṇa* texts and the ancient Indian exegete Yāska, who states in his *Nirukta* 10.5: *rudro rautīti sataḥ ... rodayater vā / yad arudat tad rudrasya rudratvam iti kāṭhakam* (quotation not traceable in the KS) / *yad arodīt tad rudrasya rudratvam iti hāridravikam* (i.e. TS 1.5.1.1).

In the Vedic texts weeping in connection with Rudra takes place in three contexts: (1) as an archer, Rudra shoots arrows onto other beings and makes them weep; (2) Rudra is a newborn baby who cries; (3) Rudra is personified by a human sacrificial victim, whose imminent death is lamented.

Prajāpati, who has committed incest with his own daughter, weeps because in punishment Rudra has shot him with an arrow: MS 4.2.12 *tám abhyāyátyāvidhyat sò 'rodīt tád vā́ asyaitán nā́ma rudrá íti* "(Rudra), on taking aim, pierced him. He cried out (*arodīt*). And that is his name: *Rudra*" (Jamison 1991:291). Bows and arrows are Rudra's much-feared favorite weapon, and as a raider/warrior he shoots people and makes them cry.

Secondly, Rudra cries as a baby. This is told in the *Śatapatha-Brāhmaṇa* (6.1.3) as follows: "8. Now, these beings ... as well as the lord of beings, the year, laid seed into Ushas. There a boy (*kumāra*) was born in a year; he cried (*sò 'rodīt*). 9. Prajāpati said to him, 'My boy, why criest thou ... ?' He said, 'Nay, but I am not freed from (guarded against) evil; I have no name given me: give me a name!' ... 10. He said to him: 'Thou art Rudra.' And because he gave him that name, Agni became such-like ..., for Rudra is Agni: because he cried (*rud*) therefore he is Rudra (*yad árodīt tásmād rudraḥ*) ..." (Eggeling 1882-1900:3.158–9). In the sequel (ŚB 6.1.3.11–7), Prajāpati gives the baby eight further names: Śarva, Paśupati, Ugra, Aśani, Bhava, Mahān Devaḥ, Īśāna and Kumāra. Hillebrandt (1929:2.457–60) while discussing these names points out that Rudra's being without a name refers to the euphemistic practice of not mentioning him directly: the Brāhmaṇa texts often speak of Rudra as "this god" (*eṣa devaḥ*).

According to the *Vādhūla-Śrautasūtra* (11.12.2–3), "after having decorated him, they bring to the place the son of the noblest bard (*sūtaśreṣṭhasya putram*), a virginal youth (*kumāram asiktaretasam*) to be the cutter of the horse, lamenting him as if he was to die (*rudanto yathā mariṣyantam evam*). For they say that formerly the head of him would fall off severed who was the first to make a cut [on the sacrificial horse]." I have suggested that this youth (*kumāra*) personified god Rudra, one of whose names is Kumāra. This youth was a bard; in RV 1.43.4 Rudra is *gāthápati-*, 'lord of the song'. This youth was virginal, had not emitted his semen, which suggests that he was destined for another "sacred marriage" that would conclude the now-beginning period of raiding, where he personified Rudra. His expected death was lamented (*rud-*), which connects Rudra with the dying and lamented bridegroom of the Goddess in the mystery religions of the ancient Near East. This is a new argument for deriving Rudra's name from the root *rud-*.

The male partners in the "sacred marriage" of the *aśvamedhá*, *puruṣamedhá* and *mahāvratá* had to be chaste, i.e. they were not allowed to have any sexual relation before the final union; this was supposed to accumulate their creative power. The Hindu war-god Skanda is called *Sanatkumāra* 'eternal bachelor', for the first time in the *Chāndogya-Upaniṣad* 7.26 (... *bhagavān sanatkumāraḥ. taṃ skanda ity ācakṣate*). In Kālidāsa's *Vikramorvaśīya* (4.175) Mahāsena (i.e. the war-god Skanda) has taken the vow of eternal chastity (*purā bhaavadā mahāseṇeṇa sāsadaṃ kumāravvadaṃ geṇhia* ... = *purā bhagavatā mahāsenena śāśvataṃ kumāravrataṃ gṛhītvā* ...).

5 Tamil *Murukaṉ* 'youth, baby boy', alias *Cēy* 'the Red'

There is full reason to suspect that **Rudhra*, 'the Red', really reflects a pre-Aryan and specifically Dravidian god's name after all. In the earliest Old Tamil poems, dating from the first centuries CE, before South India was subjected to a stronger Brahmanical influence, there are many references to a male god whose name means 'Redness' and 'the Red/Ruddy one', derived from the Proto-Dravidian root **ke-* 'red; to be red,

redden, become angry' (Burrow and Emeneau 1984:175 no. 1931): *Cēy* (e.g. Akanāṉūṟū 266.21; Puṟanāṉūṟu 14.9; 125.20; Paripāṭal 6.69), and with the male personal suffix *Cēyaṉ*, *Cēyavaṉ*, *Cēyāṉ*, *Cēyōṉ* (e.g. Puṟanāṉūṟu 56.8; Tolkāppiyam, Poruḷ 5). In addition, the god is also called *Vēḷ*, 'Desire' (corresponding to Sanskrit *Kāma*), and *Ce-v-Vēḷ*, 'Red Desire', as well as *Vēlan*, 'Spearman' and *Ce-v-vēl*, 'one holding a red spear'.

Another ancient name for this principal native deity of the Old Tamil pantheon is ***Muruku*** or ***Murukaṉ***, still prevalent today.[7] This latter name, which also goes back to Proto-Dravidian (having cognates in Malayāḷam, Toda, Tuḷu, Telugu, and Koṇḍa, see Burrow and Emeneau 1984:447 no. 4978), means 'tender age, child, youth, young man', being thus an exact synonym of Ved. ***kumārá***, which is among the names of both the Vedic Rudra and his Hindu successor, the war-god Skanda, with whom Murukaṉ was explicitly identified in the later phase of Old Tamil literature. Significantly, in Dravidian there are two precise homonyms of ***muruku***. One means 'bracelet, bangle, nose-ring, ear-ring' (no. 4979), and this word has been used as a rebus to write Muruku's name in the pictographic Indus script (see Parpola 1994:225–39). Bangles are also instrumental in charms to get baby boys, not only in the *Atharvaveda* (AVŚ 6.81), but also in South India, where childless parents usually make a pilgrimage to a Murukaṉ temple to pray for a son. The other homonym of ***muruku*** means 'to kindle fire into a blaze; to burn, scorch, smolder' (no. 4980), which is in agreement with the 'fiery' nature of Rudra.

Murukaṉ is in Old Tamil poems a god of war. Kailasapathy (1968:243) writes, "The wrath of several heroes is likened to that of the god Murukaṉ. He is described as 'victorious hero of terrible wrath' [Patiṟṟuppattu 11:6]. Elsewhere, he is described as *ciṉamiku Murukaṉ*, 'wrathful Murukaṉ' [Akaṉāṉūṟu 59:11]." This is Murukaṉ's characteristic also in the 16th poem of the Puṟanāṉūṟu:

> "Destroying the land, your limitless army advances,
> with its swift horses peerless in battle,
> and spreads out its shields like so many clouds,
> moving forward, destroying the vanguard,
> ravaging the rich fields, bathing elephants
> in the waters of the reservoirs that had been guarded,
> as the glare that rises up from the blazing fires
> fueled by the wood of houses seems the red glow
> of the sun when its rays are dwindling down!
> You who win battles with no need of allies!
> Your sword reeks of flesh, your chest of dried sandalpaste!
> Chieftain who inspires fear! Ferocious as Murugan!
> The land that had been defended you feed
> to shining fire, devastating the wide and lovely fields . . ."
> (tr. Hart and Heifetz 1999:13)

[7] On Murukaṉ, see Hart 1975:21–31; Clothey 1978; Zvelebil 1977; 1991; Dubianski 2000.

"The burning buildings and the smoldering countryside are recurrent images in the poems. Like a great wind, the king spreads fire in enemy territories [Maturaikkāñci 126]. The warriors cut down the guards in the light of the burning flames, and drive away the cattle [Maturaikkāñci 691]. The king relishes plundering in the light of the burning flames, amidst the pandemonium of the cries and groans of people [Puṟanāṉūṟu 7:8–9]. The flower-garland of the king fades in the heat and smoke of the fire raging in the enemy's lands [Puṟanāṉūṟu 6:21–2]. [Also Patiṟṟuppattu 25, 26, 43, 48, for slaughter, devastation, and destruction by fire.]" (Kailasapathy 1968:79; the references given in footnotes have been inserted in the text, giving full names of the Old Tamil texts instead of abbreviations).

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Rebels without a Causative

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Besonders bei der Konsultation des Verbum-Teils rezenter indogermanistischer Handbücher bzw. speziell dem indogermanischen Verbum gewidmeter rezenter Arbeiten stellt sich immer wieder der Eindruck ein, daß einerseits Angaben aus älteren Handbüchern eher unkritisch übernommen werden und andererseits ganz generell eher dogmatisch-deduktiv als ergebnisoffen-induktiv vorgegangen wird. Wie mir scheint, wirkt hier immer wieder als ein nicht offen deklariertes Grundaxiom die vorgefaßte Meinung, in der rekonstruierten Grundsprache oder doch wenigstens in einer unmittelbaren Vorstufe von dieser müßte das Prinzip „one meaning–one form" ausnahmslose Gültigkeit besessen haben.

Wie ganz anders verhält sich da die Honoranda: in all ihren Arbeiten und so auch in ihren vielen jeweils grundlegenden Beiträgen zum Verbum[1] verhört sie, geleitet von Skepsis gegenüber traditionellen Lehrmeinungen,[2] zunächst einmal die Fakten und gelangt darauf durch Induktion zur Hypothesenbildung.

Als Beispiel für solch unterschiedliches Verhalten der Honoranda einerseits und auch recht rezenter Handbücher andererseits sei hier jene Kategorie von augenscheinlich deverbativen Präsensstämmen genannt, bei denen ein Suffix **-éi̯e/o-* an eine Verbalwurzel in der *o/ō*-Stufe anzutreten scheint[3] und die gerade auch wieder gemäß den rezenten Handbüchern schon in der Grundsprache gleichermaßen als „Iterativa" und als „Kausativa" fungiert haben.

Um die Gültigkeit des Prinzips „one meaning–one form" zumindest für eine Vorstufe der rekonstruierten Grundsprache zu retten, hat man immer wieder versucht, eine der beiden angeblichen grundsprachlichen Funktionen „Iterativ" und „Kausativ" aus der anderen herzuleiten. Rasmussen (1989:150f.) sah „nur eine Antwort" auf die Frage, „wie zwei so anscheinend grundverschiedene Funktionen wie Kausativität

[1] Vgl. außer der Monographie Jamison 1983 insbesondere Jamison 1997, 1999, 2008 und 2009.

[2] Vgl. etwa ihre goldenen Worte bezüglich einer „unquestioning acceptance of the axioms, parameters, and conclusions of scholars associated with or influenced by the 'Erlangen School'": „Needless to say, this school has contributed more to our understanding of Indo-Iranian grammar in the last half century than any other set of scholars taken as a group. Nonetheless, it is healthy to remember that their work presents hypotheses, which should be subject to the inspection and criticism of other scholars, not established truth" (Jamison 2002:353).

[3] Ich folge Brent Vine (2012:548–55) in seiner Ablehnung eines idg. Nebentyps *R(ṓ)-ye/o-*; vgl. auch Tremblay 2012:422f.

und Iterativität sich in einem Ausdruck vereinigen lassen“: seiner Ansicht nach „lag beiden Funktionsgruppen die kausativische Funktion, und nur sie, zugrunde“.[4] Was die entgegengesetzte Strategie anlangt, so hat Kölligan (2004) in einem Übergang von „Iterativ-/Intensiv-“ zu „Kausativ“funktion offenbar geradezu ein linguistisches Universale sehen wollen.[5] Mit „Iterativ“ und „Kausativ“ wird die tatsächliche Art und Weise der Verwendung dieses Bildetyps allerdings nur völlig unzulänglich wiedergegeben.

In bezug auf die angebliche „iterative“ Funktion haben just die Urhandbücher der modernen Indogermanistik wesentlich differenzierter als die späteren Handbücher geurteilt. Delbrück (1897:109–13) spricht in bezug auf seine beiden Hauptbeispiele ai. *patáyati* und griech. *φορέω* ausdrücklich von „iterativ-zielloser Bedeutung“ statt einfach von „iterativer“, und Brugmann ist ihm gleich darauf gefolgt;[6] daran hat Hock (1995:74 Anm. 2) erinnert und dabei auch betont, daß Delbrücks „Charakterisierung [...] eine starke Stütze in den slavischen sogenannten ‚iterativen‘ *i*-Verben“ finde. Tucker (1990:140, 145f.) wollte bei den homerischen angeblichen „Iterativen“ dieses morphologischen Typs überhaupt keine iterative Semantik ausgemacht haben,[7] und García García (2005:41) urteilte: „In den germanischen Sprachen lassen sich kaum Spuren einer intensiv-iteriven [sic] Funktion des *jan*-Suffixes finden“, ohne aber deshalb eine solche Funktion für die idg. **-éi̯e/o*-Bildung bestreiten zu wollen (García García 2005:44). Deroy (1993:98f.) kam auf Grund einer neuerlichen Untersuchung der homerischen Verwendung von griech. *φορέω* zum Schluß „que les verbes dérivés à vocalisme radical *o* et à suffixe **-ey-e/o-* expriment des procès complexes, multiples, qui ont tantôt des sujets nombreux, tantôt des objets divers, intervenant successivement ou simultanément ou en désordre“, und wollte als Terminus lieber „fréquentatif“ empfehlen. Kulikov (2008) bestätigte demgegenüber auf der Grundlage einer neuen, sehr sorgfältigen Untersuchung des Gebrauchs von ved. *patáyati* Delbrücks Charakterisierung der Semantik dieses Verbums als „ziellos“ („atelic“). Echte Iterativa scheinen aber immerhin einige der diachronisch gewiß hierhergehörigen halbthematischen *ā*-Präsentien mit Infinitivstamm auf *-ī-* des Baltischen.[8]

Was die sogenannte „kausative“ Seite anlangt, so hat meines Wissens just erst die Jubilarin bewußt gemacht, daß es im Vedischen eine Reihe von einschlägigen transitiven Bildungen wie *chādayati* ‘bedecken’ oder *dhāráyati* ‘halten’ gibt, die weder in Opposition zu noch in Konkurrenz mit anderen Präsensstammbildungen von der betreffenden Wurzel stehen,[9] und so den entscheidenden Nachweis dafür erbracht, daß den vedischen Vertretern des hier besprochenen Bildetyps (vom isolierten *patáyati* ‘atelisch fliegen’ abgesehen) durchwegs vielmehr die Eigenschaft der *Transitivität* gemeinsam ist. Nur daß der Bildetyp im RV des weiteren viele oppositionelle Transitiva bei unakkusativischen Wurzeln, hingegen eigentliche Kausativa weitgehend[10] nur bei unergativischen Wurzeln stellt,[11] war schon zuvor mehr oder weniger explizit zum Ausdruck gebracht worden.[12] Schließlich hat die Honoranda in ihrer Monographie auch als erste nachdrücklichst darauf hingewiesen, daß eine gewisse Anzahl einschlägiger vedischer (und auch avestischer) Bildungen durch ‘machen + Verbaladjektiv’ (z.B. ‘makes perceived’, ‘makes awaken’, ‘makes seen’) zu übersetzen ist;[13] dies ist ein Gebrauch, der wohl am besten ein „faktitiver“[14] genannt wird und wenig später auch tatsächlich diese Bezeichnung erhalten hat: Da oppositionelle Transitiva vielfach auch just vom selben Stamm wie das entsprechende Antikausativum gebildet werden (Typus ved. *várdhati* / *várdhate*), wobei in der Grundsprache ein Antikausativum offenkundig bisweilen sogar noch als sein eigenes oppositionelles Transitivum (und *vice*

[4] Dabei setzt Rasmussens Erklärung offensichtlich eine ursprüngliche Funktion (auch) als Kausativa zu *transitiven* Wurzeln voraus.

[5] Vgl. insbesondere Kölligan 2004:240f.: „Der in den indogermanischen Sprachen oft zu beobachtende Zusammenhang von Iterativ-/Intensiv- und Kausativbildungen findet sich auch in anderen Sprachen und dürfte daher kein Spezifikum der idg. Sprachfamilie darstellen, sondern auf einen möglicherweise allgemein gültigen Zusammenhang hinweisen. Als einer von sicherlich mehreren möglichen Grammatikalisierungspfaden läßt sich m. E. die Entwicklung von Iterativbildungen über die Iteration des Subjekts zu Komitativen und von diesen zu Kausativen vorstellen.“ (Bemerkenswerterweise fehlen in der Literaturliste zu Kölligan 2004 die schon erwähnte Monographie Rasmussen 1989 ebenso wie die gleich zur Sprache kommenden indogermanistischen Arbeiten Redard 1972, Jamison 1983, Lubotsky 1989, Tucker 1990, Monteil 1992, Deroy 1993.) Vgl. auch Meiser 1993:281 Anm. 10: „Ausschlaggebend für den kausativen Gebrauch von Iterativ-/Intensivbildungen mag das Moment der ‘inneren Pluralität’ gewesen sein, das beiden Aktionsarten eignet (Iterativa: ‘Wiederholung der Handlung’, Kausativa: ‘Doppeltes Subjekt’)“; für García García (2005:39f. Anm. 45) trägt diese Behauptung Meisers jedenfalls einer angeblichen „übereinzelsprachlichen Geltung“ einer „Verknüfpung [sic] von Intensität-Iterativität und Kausativität [...] Rechnung“.

[6] Vgl. etwa Brugmann 1913:360: „Die Verba der *éi̯o*-Klasse zeigen seit der idg. Urzeit zwei verschiedene Bedeutungen, nämlich eine iterative (genauer: iterativ-ziellose) oder frequentative – die aber zum Teil stark verblaßt ist [...].“

[7] Vgl. auch schon Redard 1972:184f. Just in bezug auf Slavisch und Griechisch gibt sich Kuryłowicz (1956:87) freilich zuversichtlicher: „L’ancienne valeur itérative de *loukéi̯e/o-* [...] est solidement établie en slave, moins bien en grec. Partout ailleurs elle a disparu.“

[8] Siehe Stang 1966:325.

[9] Vgl. v.a. Jamison 1983:78–104 („Non-Causative *-áya*-Transitives“) und 182.

[10] Für einschlägige ved. Bildungen von augenscheinlich transitiven Wurzeln vgl. v.a. Tichy 1980 und 1993 sowie zuletzt Lazzeroni 2009:8–10.

[11] Terminologie von Malzahn 2010:50, 56–8 und 2012:236f. Bei García García 2005:32f. entsprechen in etwa „Kausativa“ von „inaktiven intransitiven Verben“ bzw. „Kausativa“ von „agentiven intransitiven Verben“ bzw. (sc. nur „ingestiven“) „transitiven Verben“.

[12] Vgl. Thieme 1929:18–23, Kuryłowicz 1956:89 und 1964:87, Redard 1972:187.

[13] Vgl. insbes. Jamison 1983:161f., 166, 175f.

[14] Unter „Faktitiva“ versteht man ja doch zuvörderst Verben, die mit ‘machen + Adjektiv’ zu übersetzen sind; allerdings wird dieser Terminus vielfach auch als bloßes Synonym für „oppositionelles Transitiv“ oder überhaupt „Kausativ“ verwendet; so gibt etwa Meiser (1993:281 Anm. 9) folgende Definition: „Kausativa bezeichnen das Veranlassen einer Handlung [sic!; also nicht etwa auch das Veranlassen eines Vorgangs], Faktitiva das Versetzen in einen Zustand“, wobei er dann in der Folge bewußt nicht mehr „zwischen Kausativum und Faktitivum“ unterscheidet. Tichy (2004:566) führt einerseits die ved. Kausativaoriste vom Typ *ájījanat* ‘hat erzeugt’ auf „Präsentien [...] mit faktiver [sic] Funktion“ zurück, bezeichnet andererseits aber auch „*tiráti* ‚bringt (sc. durch Hindernisse) hindurch‘ [...], das im Vedischen neben primärem *tárati* ‚kommt durch, überwindet‘ steht“ (also ein Kausativum zu einer transitiven Wurzel scheint), als „faktitiv“ (vgl. weiters Tichy 2004:567 Anm. 7: „Der [...] *s*-Aorist *átārīt* [...] konnte bei Bedarf auch faktitiv verwendet werden“).

versa) fungieren konnte,[15] schlug Lubotsky (1989:109–11) offenkundig zwecks Rettung des Prinzips „one meaning–one form“ (das eine alte Synonymie von ***várdhati*** und ***vardháyati*** ausschließt)[16] vor, daß die Bildungen vom Typ ***vardháyati*** ursprünglich just exklusiv „factitiva“ (d.h. Verben mit Bedeutungen wie ‘make seen, heard, known, touched’) gewesen seien.[17] Da sich „Kausativa“ im weitesten Sinn des Terminus (d.h. unter Einschluß der oppositionellen Transitiva) und so verstandene „Faktitiva“ semantisch nur im Fall einer zugrundeliegenden ***transitiven*** Wurzel gravierend unterscheiden, könnte man nun im Hinblick auf möglicherweise grundsprachliches **su̯ōp(e)i̯e/o-* ‘(eingeschlafen machen =) (ein)schlafen machen’ erwägen, daß unser Bildetyp doch schon in der Grundsprache regelmäßig echte Kausativa zu ***unergativischen*** Wurzeln wie etwa eben **su̯ep-* ‘(ein)schlafen’ geliefert hat.[18] Allerdings bewiese die Existenz eines idg. **su̯ōp(e)i̯e/o-* ‘(ein)schlafen machen’ allein noch lange nicht die grundsprachliche Existenz einer eigenständigen morphosyntaktischen Kategorie „Kausativ“ (sc. von unergativischen Wurzeln), und besagtes **su̯ōp(e)i̯e/o-* ist für die Grundsprache jedenfalls nicht besser gesichert[19] als etwa **u̯o/ōsei̯e/o-* ‘bekleiden’, das m.E. zu einer unakkusativischen Wurzel gehört[20] und letztlich ein **u̯és-ti* verdrängt[21] hat.[22] Andererseits findet man im Vedischen wie im Griechischen auch immer wieder Kausativa zu unergativischen Wurzeln, die ***nicht*** mit **-éi̯e/o-* gebildet sind,[23] ja ved. ***tiráti*** stellt offenbar sogar ein einschlägiges Kausativum ohne **-éi̯e/o-* zu einer ***transi-***

[15] Vgl. Malzahn 2012:236f., auch Pooth 2004:451–9.

[16] Tatsächlich fungieren sowohl im Vedischen als auch in einigen anderen idg. Sprachen zusätzlich noch Nasalpräsentien als oppositionelle Transitiva, vgl. u.a. Hollifield 1977:167 (****ki̯eu̯tor*** „oppositional middle“ zu ****kineu̯ti***, man vgl. auch griech. *κίρνησι* : *κέραται*, *κρήμνησι* : *κρέμαται* [doch hat nach Tremblay 2012:425 *κρήμνησι* älteres ****krémh₂-ti*** ‘*pendit*’ ersetzt]), Jamison 1983:186 Anm. 12 mit Lit., Meiser 1993, Bertocci 2009, Lazzeroni 2009:12–9 und Malzahn 2012:237 mit weiterer Lit.; für Malzahn (mit Lit.) waren oppositionell-transitive Formen vom selben Stamm wie das Antikausativum am archaischsten. Im Heth. ist ***laknuzi*** ‘fällen’ in der Tat deutlich jünger als ***laki*** ‘*umlegen’, vgl. Kloekhorst 2008:514f.

[17] So implizit offenbar auch Tichy 1980:15–8; vgl. Tichy 1993:457 („Deverbale Ableitungen mit dem Suffix uridg. **-éi̯e-* [. . .] bedeuten ‘jdn. oder etw. in den vom Grundverb bezeichneten Zustand versetzen“).

[18] Vgl. Malzahn 2012:237. Lazzeroni (2009:13) scheint in der Tat der Meinung zu sein, daß die ved. ***-áya-***Bildung eher bei den unergativischen Verben als bei den unakkusativischen ursprünglich gewesen sei.

[19] Vgl. etwa die bei Vine 2012:548f. genannte Literatur und Tremblay 2012:423.

[20] Vgl. Jamison 1983:133 Anm. 60, Malzahn 2010:98, 897.

[21] Vgl. Malzahn 2010:897 und 2012:236 Anm. 11.

[22] Vgl. Jamison 1983:186 Anm. 12, die anders als Lazzeroni vielmehr folgende ursprüngliche (komplementäre) Distribution von Nasalpräsentien und ***-áya-***Präsentien vermutet: „If the nasal infix formed characterized trans. presents to roots fundamentally inflected in the aorist, the **o*-grade **-éi̯e-*formation may have furnished similarly trans. presents to roots fundamentally inflected in the present“; bei einer solchen ursprünglichen Distribution müßte es jedenfalls von Anfang an auch eine große Anzahl von oppositionellen Transitiva unter den ***-áya-***Präsentien gegeben haben.

[23] Vgl. etwa ved. ***járati*** ‘alt werden lassen’ (Jamison 1983:154) / ***jurátam*** ‘altern = hinfällig werden lassen’ oder griech. *ἔλπω* ‘hoffen machen’ (vgl. Margulies 1931:82–6). Das ved. Imperfekt ***áduha(t)*** war ursprünglich wohl mit der griech. Aoristform *ἔτυχε* ‘traf’ (offenkundig unergativisch) identisch, was eine direkte Bedeutungsverengung zu ‘traf in den Melkeimer’ > ‘gab Milch’ oder eine komplexere Bedeutungsentwicklung über ‘traf ein, erwies sich als trefflich, war ergiebig [vgl. Pooth 2004:429], lieferte’ zu ‘gab Milch’ zu implizieren scheint; besagtes ***áduha(t)*** ist nun aber auch selbst in der kausativischen Bedeutung ‘machte Milch geben, molk’ bezeugt, und ein nämliches gilt für die offenbar erst neuhinzugebildeten aktivischen und me-

tiven Wurzel dar.[24] Die Jubilarin wie auch die anderen Rebellen gegen die Annahme einer schon grundsprachlichen distinkten morphosyntaktischen Kategorie „Kausativ“ (bzw. „Iterativ-Kausativ“) sind also zweifellos im Recht.

Freilich trägt Lubotskys augenscheinliche Annahme einer grundsprachlichen morphosyntaktischen Kategorie „Faktitiv“ auch nicht allen einzelsprachlichen Gebrauchsweisen unseres Bildetyps hinlänglich Rechnung. Nach dem weiter oben Dargelegten finden wir bei diesem in den diversen Einzelsprachen deskriptiv nicht nur zwei, sondern sogar eine Vielzahl unterschiedlicher Funktionen vor: die einer atelischen Variante von telischen Präsensstämmen, die eines echten Iterativs, die einer transitiven Präsensbildung bei gleichzeitigem synchronen Fehlen von konkurrierenden/kontrastierenden anderen Präsensstämmen – d.h. die einer transitiven Primärbildung, die eines oppositionellen Transitivs bei unakkusativischen Wurzeln, die eines Faktitivs sowie die eines echten Kausativs bei unergativischen und auch transitiven Wurzeln; letztere Funktion liegt etwa deskriptiv in lat. ***doceō*** ‘lehren’ vor, dies ein echtes Kausativum der ursprünglichen Bedeutung ‘jemanden etwas aufnehmen machen’ von der transitiven Wurzel **deḱ-* ‘aufnehmen, annehmen’, wobei ein solches **doḱéi̯e/o-* formal allerdings auch in griech. *δοκέω* fortgesetzt scheint, das vielmehr sowohl ‘meinen’ als auch ‘(gut) scheinen’ bedeutet; am nächstliegenden wäre es zweifellos, ‘meinen’ auf ‘annehmen’ und ‘(gut) scheinen’ auf notabene passivisches ‘angenommen werden’ zurückzuführen.[25] Namentlich im Hinblick auf den Umstand, daß sich die genuin kausativische Funktion leicht aus der oppositionell-transitiven ableiten läßt (und im Fall der letzteren bloß ***ein einziger*** Agens vorliegt), vermögen die oben angeführten Herleitungen der angeblich bloß zwei verschiedenen Funktionen „Iterativ“ und „Kausativ“ aus jeweils einer dieser beiden durch Rasmussen, Kölligan und Meiser nun allesamt nicht mehr zu befriedigen.

Zielführender scheint mir ein anderer Weg, der schon oft beschritten, aber bislang noch kaum ausgeschritten worden ist: Eine alte These besagt, daß unser deskriptiv ***deverbaler*** Bildetyp seinen Ausgangspunkt in alten Denominativa von *o*-Stämmen mit *o*-Stufe der Wurzel besessen hat;[26] so etwa Reichelt 1909:118 (mit dem Zusatz „Dazu

dialen Formen mit Primärendungen wie ***duhánti***. (Alt war hier wohl ein athematisches Wurzelpräsens mit Narten-Ablaut, vgl. Tremblay 2006:266 Anm. 25.)

[24] Vgl. etwa Tichy 2004 und Hill 2007:146 („‘etwas (Akk.) bewegen’, ‘etwas (Akk.) befördern’“); man beachte auch, daß im Fall von ***tiráti*** der Aorist des (transitiven) Grundverbs ***átārīt*** als sein eigenes (genuines) Kausativum fungierte (Tichy 2004:567 Anm. 7, Hill 2007:157–9).

[25] Ganz anders Tichy 1980:16 (*δοκεῖ μοι* „es scheint mir (gut)“ ursprünglich „jdm. (Dat.) etw. (Akk.) geistig annehmbar, erfaßbar werden lassen“) bzw. Tichy 1976:81 Anm. 26 (Bedeutung ‘meinen’ „vielleicht“ erst sekundär nach *δοκῶ μοι*, und dies „dann ‚ich erwecke den Eindruck bei mir‘ bzw. ‚ich glaube von mir‘“); man beachte, daß für Kloekhorst 2008:812 die Verbindung von *δοκεῖ* ‘it seems’ mit der Wurzel ****deḱ-*** ‘aufnehmen, annehmen’ „seems quite unlikely [. . .] for semantic reasons“.

[26] Daneben gab oder gibt es auch noch andere Hypothesen, die mit einem denominalen Ursprung operieren, so die namentlich von Lubotsky 1989:110f. (modifiziert) wiederbelebte These Brugmanns, daß es sich ursprünglich um Ableitungen von nominalen *i*-Stämmen gehandelt habe. Diese leuchten morphologisch freilich allesamt überhaupt nicht ein, siehe die ausführliche Widerlegung durch die Jubilarin (Jamison 1983:12–4).

würde auch die doppelte Bedeutung [...] stimmen"), Margulićs 1931:88–91, Kuryłowicz 1956:86, 94, Redard 1972:186–89, Szemerényi 1990:296, Monteil 1992:334, Deroy 1993:99 mit Lit., wohl auch *LIV*^{2} 23 („Die Doppelbedeutung des Bildungstyps ist eher verständlich, wenn die Bildung denominalen Ursprungs war") und Meier-Brügger 2010:306.[27] Wie man sieht, hat man mit einer solchen Analyse zum Teil auch schon die angebliche Doppelfunktion des Bildetyps zu erhellen gehofft, ohne daß man aber bisher auf die dabei zu mutmaßende semantische Entwicklung detaillierter oder jedenfalls überzeugend eingegangen wäre.

Nimmt man an, daß dem Bildetyp letztlich dekasuelle **-i̯e/o-*Ableitungen von Instr.Sg.-Formen abstrakter **o*-Stämme auf **-e* < **-e*h_1 zugrundeliegen,[28] so hat man als ursprüngliche Semantik "mit Abstraktum X sein/werden/machen" zu gewärtigen. Aus einer derartigen Grundbedeutung[29] lassen sich die real bezeugten Verwendungsweisen[30] in der Tat allesamt problemlos herleiten, wobei natürlich die Vermutung auf der Hand liegt, daß zahlreiche einschlägige Bildungen schon in der späten Grundsprache recht spezifische Bedeutungen angenommen hatten. Derartige grundsprachliche Bildungen mit jeweils ***unterschiedlicher*** semantischer Spezialisierung konnten dann jeweils in den Einzelsprachen als Musterformen produktiv werden und die Grundlage für einzelsprachliche morphosyntaktische Kategorien von ***unterschiedlicher*** Funktion bilden.[31]

Für die Deutung des Präsensstammtyps *R(o)-éi̯e/o- / R(ṓ)-ei̯e/o-* als von dekasuellem/denominalem Ursprung läßt sich nun m.E. auch noch morphologische Evidenz aus dem Griechischen (und vielleicht auch aus dem Hethitischen) anführen:

Nach einer auf Karl Hoffmann zurückgehenden Mutmaßung „aorists belonging to denominative presents (in PIE **-i̯e/o-*) were/could be provided by a phrase consisting of the instr. sg. of the noun that was basic to the respective denominative present on the one hand and a form of an auxiliary verb on the other hand", wobei die Formen des Hilfsverbs aber auch gänzlich weggelassen werden konnten (Malzahn 2010:146, vgl. 156). Das impliziert, daß z. B. von einem ursprünglich dekasuellen/denominalen und bloß synchronisch deverbalen Präsens **doḱé+i̯e/o-* eine noch grundsprachliche

[27] „Die Doppelbedeutung des Bildungstyps erklärt sich am besten, wenn wir für die Bildung denominalen Ursprung postulieren, vgl. uridg. ****men-*** 'einen Gedanken fassen' [...] mit dem Abstraktum ****móno-*** 'das Fassen von Gedanken'. Zu ****móno-*** wäre dann mit denominativem *-i̯e-* die Form ****moné-i̯e-ti*** gebildet 'besorgt das Fassen von Gedanken' i.S.v. 'macht daran denken'" – wozu notabene ved. ***mānayati*** mit seiner ***faktitiven*** Bedeutung 'macht angesehen, respektiert' (Jamison 1983:150) überhaupt nicht stimmt.

[28] Laryngalschwund (sc. nach Kuipers Gesetz) konnte sich zumindest im Fall einer Positionierung solcher Instr.Sg.-Formen am Satzende im Rahmen bzw. als Folge eines prädikativen Gebrauchs unter Weglassung der entsprechenden Hilfsverbformen eingestellt haben.

[29] Vgl. Tichy 1993:457: „Deverbale Ableitungen mit dem Suffix uridg. **-éi̯e-* > ved. *-áya-* sind von Hause aus syntaktisch ein- oder zweiwertig und bedeuten teils 'in dem vom Grundverb bezeichneten Zustand sein', teils 'jdn. oder etw. in den vom Grundverb bezeichneten Zustand versetzen'."

[30] I.e. etwa auch die Konstruktion von lat. ***noceō*** 'schaden' mit dem Dativ.

[31] Vgl. schon Margulićs 1931:88.

3.Sg. Aorist **(e-)doḱe* (vgl. etwa den griechischen Aorist ἔχραισμε) erwartet werden dürfte.

Nun heißt es üblicherweise freilich, daß die deskriptiv deverbale *R(o)-éi̯e/o- / R(ṓ)-ei̯e/o-*Präsensbildung in der Grundsprache keine eigenständigen Aoristformen neben sich gekannt habe; vgl. jüngst Weiss 2012:155f.: „It is generally agreed that iterative-causative imperfective stems did not make corresponding non-imperfective stems in Proto-Indo-European. The individual daughter languages have filled out their paradigms in the post-protolanguage period."

Auf diese Weise wird man aber der außerpräsentischen Stammbildung der beiden griechischen einschlägigen Verben δοκέω und ὠθέω 'stoßen'[32] schwerlich gerecht. In bezug auf das erstere Verbum liest man bei Schwyzer 1953:718: „Ursprünglich waren die Iterativa und Kausativa auf -άω -έω (wie die Denominativa[33]) nur präsentisch [...], während die übrigen Tempora vom allgemeinen Verbalstamm gebildet wurden. Dieses Verhältnis ist in einigen Resten bewahrt: att. δοκέω : δόξω ἔδοξα δέδογμαι [...]." Nun läßt sich *o*-stufiges δοκ- innerhalb des Griechischen freilich nicht als von der einschlägigen Wurzel gebildeter „allgemeiner Verbalstamm" auffassen, als welcher im Griechischen vielmehr δεκ- zu gelten hat; dementsprechend folgt Schwyzer *l.c.* in Anm. 2 einer Behauptung Wackernagels, δόξω usw. seien nach δοκέω aus einem **déksō* usw. umgeformt.

Tatsächlich folgen δοκέω und ὠθέω deskriptiv einfach einem im Griechischen gut bezeugten Flexionstyp präsentisch Stamm X + -έω/-έομαι : außerpräsentisch (Futur, Aorist) Stamm X + -σ-, wie man jedenfalls bei Hirt 1912:500 nachlesen kann,[34] wobei diese beiden wichtigen und frequenten Verben zweifellos gerade jene Verben mit genanntem deskriptivem Paradigma sind, die man am ehesten als diachronischen Ausgangspunkt für besagtes flexivisches Muster vermuten möchte. Auf ὠθέω / ὠσ- läßt sich Wackernagels höchst gezwungene[35] Erklärung für δοξ- nun nicht übertragen: da die Wurzel augenscheinlich auf **-*h_1*-* ausgegangen ist,[36] hätte ein primärer *s*-Aorist des Griechischen unbedingt **u̯ethes-* lauten müssen, das unter dem Einfluß von präsentischem (ϝ)ὠθέω wieder nur eine Umgestaltung zu einem *(ϝ)ὠθησ- erfahren haben könnte. Daß (ϝ)ὠσ- seine Existenz seinerseits bloß einer analogischen Proportion δοκέω : δοξ- = (ϝ)ὠθέω : x verdankt, ist in zweifacher Hinsicht unwahrscheinlich: bei Homer lautet das Verhältnis von Aorist- zu Präsensstammformen bei diesem Verb

[32] Vgl. García Ramón 1998:152, Tremblay 2012:438, Vine 2012:550.

[33] Diese haben gemäß Karl Hoffmann freilich sehr wohl schon in grundsprachlicher Zeit über spezielle Aoristbildungen verfügt, siehe gerade oben im Text.

[34] Vgl. auch Risch 1974:308 („Nicht ganz selten ist -έω neben Aorist auf -σα").

[35] Man hätte bei einem ursprünglichen Szenario (*)*doḱé(i̯)ō* vs. **deḱs-* und späterer analogischer Einwirkung des Präsensstammes auf den Aorist a priori eher gleich einen vollständigen Ersatz von **deḱs-* durch (*)*doḱe/ēs-* erwarten sollen, und δοκησ- ist ja in der Tat namentlich in der Sprache der Poesie (von Homer an) sehr gut bezeugt. Vgl. allerdings auch den nur partiellen Einfluß von δοκ- in homer. δοάσσατο 'schien' (Wackernagel 1916:62).

[36] Die Angabe bei García Ramón 1998:151 „*vadh* (sekundär auch *vadhⁱ*)" erschließt sich mir nicht; der vedische Aorist hat von Anfang an und immer wurzelschließendes *-ī-*.

61 : 3[37] und findet sich neben diesem hochfrequenten *ὠσ-* gar kein *δοξ-*, sondern allein die evidente Neubildung *δοκησ-*.

Dementsprechend müssen (*)*(u̯)ōt^{h}é(i̯)e/o-* und (*)*doké(i̯)e/o-* jedenfalls zunächst einmal synchronisch als (*)*(u̯)ōt^h+é(i̯)e/o-* und (*)*dok+é(i̯)e/o-* analysiert worden sein, was wiederum die einstige Existenz entsprechender deskriptiv thematischer Aoriste **(e-)u̯ōt^h+e* bzw. **(e-)dok+e*[38] oder aber eine schon frühzeitige Existenz sigmatischer Aoriste (*)*(e-)(u̯)ō(t^h)+s-*, (*)*(e-)dok+s-* vorauszusetzen scheint. Da für *primäre o*-stufige sigmatische Aoriste vom Typ **dok-s-* meines Erachtens keine gute Evidenz vorliegt und altes **dok-s-* andernfalls erst recht keinen Sinn macht, werden wir somit tatsächlich auf das einstige Vorhandensein von griechischen aoristischen 3.Sg.-Formen **(e-)doke*, **(e-)wōt^{h}e* geführt, die allerdings eine sekundäre Sigmatisierung erfahren haben müßten.[39]

Die grundsprachliche Existenz einer entsprechenden aoristischen 3.Sg. **doḱe* vermag dann auch eine Erklärung für das hethitische Präsens 3.Sg. *dākki* 'gleichen' (semantisch zweifellos aus 'scheinen' herleitbar, vgl. griech. *εἴδομαι* 'scheinen' *und* 'gleichen') zu liefern, das ja augenscheinlich *nicht direkt* mit griech. *δοκέω* 'scheinen' gleichgesetzt zu werden vermag;[40] *dākki* < **doḱei̯* kann dann nämlich als inneranatolische sekundäre Hinzubildung auf der Grundlage des *tēzzi*-Prinzips[41] just zu jenem alten Aorist **doḱe* gedeutet werden, den wir gerade als Vorform von griech. *ἔδοξε* ausgemacht haben.[42]

Abkürzungen

*LIV*² = Kümmel, Martin und Helmut Rix. 2001. *Lexikon der indogermanischen Verben. Die Wurzeln und ihre Primärstammbildungen*. 2. Aufl. Wiesbaden: Reichert.

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[37] Betont von García Ramón (1998:152).

[38] Vgl. Risch 1974:247, 300, 308 („Nicht selten sind Präsentien auf *-έω*, Futura auf *-ησω* (Aoriste auf *-ησα*) neben thematischen Aoristen").

[39] Eine solche ist bei *schwundstufigen* thematischen Aoristen generell unterblieben (vgl. freilich das Faktitiv *στύξαιμι* 'verhaßt machen' Od. 11.502; der thematische Aorist *ἔστυγε* 'haßte' gehörte just zu einem Präsens auf *-έω*, sc. *στυγέω* 'hassen', das seinerseits wegen des Aoristes *ἔστυγ+ε* synchronisch als *στυγ+έω* aufgefaßt zu werden hatte), doch mußten ein **e-dok+e* und ein **e-u̯ōt^h+e* wegen ihres *-o/ō*-Vokals in der Wurzelsilbe innerhalb der generell schwundstufigen thematischen Aoriste ohnedies isoliert erscheinen.

[40] Sc. wegen der augenscheinlichen (und erwarteten) Vertretung von idg. **u̯o/ōsei̯e/o-* 'ankleiden' durch ein heth. Verb der *mi*-Konjugation; anders über heth. *wassezzi* usw. Kloekhorst 2008:1005–7.

[41] Malzahn 2010:267f. Eine analoge Erklärung bietet sich dann auch für heth. *laki* '*umlegen' an, das man im Hinblick auf die oppositionell-transitive Semantik sicherlich gerne auf ein **loǵ^{h}ei̯e/o-* zurückgeführt hätte, vgl. zuletzt Kloekhorst 2008:514f.

[42] Zu beachten ist auch noch das irreguläre außerpräsentische Verhalten eines weiteren mutmaßlichen griech. *R(o)-éi̯e/o*-Präsens, nämlich jenes von *ὀρχέομαι* 'tanzen', dies offenbar gleichfalls ein *o*-stufiges sog. „Iterativ" auf **-ei̯e/o-* (vgl. Watkins 1975:19 = Watkins 1994:528); wie Solmsen (1888:103) erkannt hat, haben wir es hier mit dem einzigen sekundären Präsens auf *-έομαι* mit *-στ-* in Ableitungen zu tun, vgl. *ὀρχηστήρ*, *ὀρχηστής*, *ὀρχηστύς*. Ein Grund für dieses Sonderverhalten will mir allerdings nicht recht in die Augen springen; wurde als Aorist zunächst etwa ein **ork^h-s-to* gebildet und **ork^{h}st-* dann mit synchronisch regulärem **ork^{h}ēt-* kontaminiert?

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The Mīmāṃsā Influence on the Formation of the *Bhagavadgītā*

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1. There has been much debate over the years regarding the composition of the text of the *Bhagavadgītā*. Leaving aside the important question of its incorporation within the epic story of the *Mahābhārata*, much of the discussion has concerned the degree to which the *BhG* is to be understood as a unified text with a coherent message or as an editorially composite pastiche of material from different sources. Recent analyses have tended to accept that the extant text reflects a process of editorial synthesis, while at the same time seeking to present the work as a whole as articulating an essentially coherent argument about the nature of the world, its relationship to God, and the place of human beings within it.[1]

Yet the question of precisely how such unity of message was achieved on the back of what are sometimes widely divergent source segments has received surprisingly little attention. Even if this or that proposal regarding the overall meaning conveyed by the text accurately reflects the intentions of an editor or editors seeking to harmonize the different source materials to promote their preferred cosmo-theological vision, on what criteria did they base the selection of this material, and what techniques did they use to integrate it?

Those who would argue for a greater compositional unity generally agree that a main aim of the *Gītā* was to reconcile conflicting concepts and practices adhered to by various groups within the wider community of those identifying themselves in one way or another with Brahminical traditions. Here, too, it may be asked whether it is possible to define, with greater specificity than has hitherto been achieved, what the rhetorical strategies accomplishing this reconciliation of discordant ideas were, by whom they were developed, how they were deployed, and what they reveal about the structure of the *Gītā* as a whole.

Attempts to trace the influences upon the composition and/or redaction of the *BhG* generally focus on one or more of several traditions whose positions are to one degree

[1]For a summary of the history of research into the *BhG*, see Malinar 2007:17–34, whose own work exemplifies attempts both to employ the methods of textual criticism and to offer a holistic reading of the text.

or another elaborated in the text. Thus, relationships have been drawn between the *BhG* and other portions of the Great Epic into which it is incorporated, as regards both the narrative and didactic portions; comparisons between certain of the teachings in the *Gītā* and the Sāṃkhya and Yoga traditions have been explored; inspiration from the cult of Vāsudeva-Kṛṣṇa is self-evident and connections to its devotional literature assumed; the importance of the *Upaniṣads* to the *BhG* has long been recognized, as have the intertextual and theological relationships with the earliest verse *Upaniṣads*, such as *Katha* and *Śvetāśvatara*.[2] Even the influence of the Vedic ritualist corpus has been identified. All of these traditions, and likely others, can be seen to have contributed to the generation of discrete parts of the text. Is there, though, any tradition to which credit can be given for accomplishing the work of integration and reconciliation mentioned above, whether it be of diverse sources or simply of conflicting ideas?

In this paper I will make the case that the project of harmonization for which the *Gītā* is known was achieved by the implementation of a hermeneutic method borrowed directly from the ritual theory of the Mīmāṃsā.[3] The key principle of this theory is that the principal or primary element (*pradhāna*) of a text is to be identified in its injunctions to action, while all other material is considered subsidiary or secondary to injunction.[4] When one reads the *BhG* in such a way, the injunctive nature of the text becomes its organizing principle and, I will argue, the key to its unity.

2. It may at first seem absurd to propose that the *BhG* owes a fundamental debt to the Mīmāṃsakas, given the contempt sometimes expressed therein towards traditional ritualism. However, my goal is not, like that of Kunhan Raja, to prove that "the *Gītā* truly reflects the view of *Mīmāṃsā*" or to assert that the work is compatible with the broader theological and ethical doctrines of the Mīmāṃsakas.[5] I propose merely that the producers of the *BhG* utilized a key principle of Mīmāṃsā interpretational method in order to organize, hierarchize, and ultimately harmonize a set of conflicting ideas and practices that otherwise threatened to contradict one other and create in the minds of the community the same sort of doubt and paralysis exhibited by Arjuna at the beginning of the text. This uniform application of Mīmāṃsā method throughout the entirety of the *BhG* and upon all of its varied contents is, in my view, what has created a uniform message despite the diversity of the text's constituent elements.

According to Jaimini's *Mīmāṃsā Sūtras*, elements involved in the performance of

[2] Malinar 2007:66–7; Oberlies 1988; Haas 1922.

[3] To my knowledge the importance of Mīmāṃsā theory to the editorial composition of the *BhG* has not thus far been explored, though Brockington (1998:270 n. 89) notes the text's "use of *mimāṃsa* vocabulary." There is not space in the current paper to discuss the question of to what extent and in what form Mīmāṃsā ideas had been systematized by the time of the redaction of the *BhG*.

[4] As Keith (1921:87) wrote, "The discrimination between what is principal and what is subsidiary (*śeṣa*) occupies the greater part of the attention of the Mīmāṃsā."

[5] Kunhan Raja 1946:22.

sacrifice are identified as "subsidiary" (*śeṣa*) when they exist or are performed "for the sake of something else."[6] According to certain ritualists of Jaimini's day, such elements were limited to the substances used in the sacrifice (*dravya*), the auxiliaries (*guṇa*), and those acts that serve to purify or prepare other elements that will be employed within the sacrifice (*saṃskāra*).[7] All of these exist solely for the purpose of carrying out the rite (*kriyārtha*) and are thus secondary and not primary.[8] Jaimini himself includes among the subsidiaries the rituals (*karmāṇi*), their results (*phala*), and the agent who performs them (*puruṣa*).[9] As Śabara explains this position, the sole purpose of the ritual is to produce the result, which in turn exists not for its own sake but for the sake of the person who performs the ritual. In certain circumstances, a person can appear as subsidiary, as when he is used as a mere instrument to measure the appropriate height of the sacrificial post.[10] In other cases, too, the division is contextual, so that it can sometimes be that a substance is primary in relation to an action when that action is only undertaken to prepare the substance for use in the ritual.[11] However, the ultimate purpose of ritual performance is the production of the final *apūrva*, the 'unprecedented' effect (*kārya*) of the ritual undertaken, which will in due time cause the final result (*phala*) of the sacrifice enjoyed by the sacrificer.[12] All substances, actions, and agents within the ritual are coordinated to the production of this final *apūrva*, and it is through the coordination to this single end that the diverse subsidiary elements constitute a unity.[13] The end itself is what is primary, i.e. the principal (*pradhāna*). It is what we might call the meaning or purpose of the sum total of actions undertaken.

In contrast to Śabara, the Niyogavādins, led by Prabhākara, are little concerned with establishing the continuity between ritual action and supermundane result.[14] Nevertheless, their analysis, too, is based upon clearly delineating what is primary and what is subsidiary.[15]

The application of the categories of primary and subsidiary is not limited to the analysis of ritual causality. It is also essential to the Mīmāṃsā understanding of language. For example, the meaning of any sentence depends upon the precise relation of all other words to the verb, which thus constitutes the principal element of meaning. Prabhākara and his followers go so far as to assert that individual words can express no meaning outside their specific relation to a verb in a sentence (*anvitābhidhānavāda*),

[6] *JMS* 3.1.2: *śeṣaḥ parārthatvāt*.

[7] Such is the view of Bādari, according to *JMS* 3.1.3, *dravyaguṇasaṃskāreṣu bādariḥ*.

[8] For details on how these elements are secondary to the rite, see Śabara's *Bhāṣya* on *JMS* 3.1.3.

[9] *JMS* 3.1.4–6: i.e. *karmāṇy api jaiminiḥ phalārthatvat* (4), *phalaṃ ca puruṣārthatvāt* (5), *puruṣaś ca karmārthatvāt* (6).

[10] See Śabara's *Bhaṣya* on *JMS* 3.1.6.

[11] See *JMS* 2.1.8 and 3.1.6, with Śabara's *Bhāṣya*, and Jha 1911:175–80.

[12] Jha 1911:157–71.

[13] On Śabara's doctrine of *apūrva* and Kumārila's subsequent development of it see Clooney 1990:224–45.

[14] See Clooney 1990:245–53.

[15] For a comprehensive treatment of the Prābhākara School's analysis of the Vedic injunctions and their fulfillment, see Freschi 2012:19–135.

but even Kumārila and other exponents of the ***abhihitānvaya*** view, who accept that other parts of speech, such as nouns, denote their meanings in and of themselves, accept that these are coordinated with—and thus subordinate to—the verb in expressing the meaning of a sentence. Thus, according to both Mīmāṃsā theories, the unity of sentence meaning is presented as the contribution of a diverse set of subsidiaries to the primary expression of action.

Similarly, in the case of Vedic language, what is primary versus what is subsidiary is ultimately determined by the relationship of all linguistic elements to a particular verbal injunction. Sometimes, however, ambiguities arise in the interpretation of the injunctive texts, and it is not possible to clearly establish that to which something is meant to be auxiliary in the enactment of the rite. Such lack of certainty was seen as highly dangerous to the successful performance of the ritual, for the wrong application of any part of the ritual apparatus would mean the failure of the performance. One of the defining projects of the Mīmāṃsā theorists, therefore, was to develop a method of interpretation to resolve such ambiguities. The nuanced hermeneutic system they produced identified six means for determining what is subsidiary and what is primary in any given Vedic expression, with 'direct statement' (***śruti***) having the greatest force, being equivalent to a Vedic injunction, and the others having progressively weaker authority.[16]

It is evident from the fact that the Mīmāṃsakas felt it necessary to elaborate such a system of interpretation that they appreciated how a single text can be understood in multiple ways. That their own hermeneutics focused primarily on establishing the criteria for ascertaining dependence and priority attests that, for them, the main way in which the same expression could be understood in different ways was through shifting the position of its component elements within a hierarchical semantic structure. The sense of a passage, or indeed of an entire text, could be altered depending upon whether the meaning-content of one particular element was subordinate or dominant to another.

The consequences of this may be neatly illustrated by the alternative reading the Mīmāṃsakas give to the ***Upaniṣads***.[17] According to Vedāntin exegetes, the primary content (***viṣaya***) of the ***Upaniṣads*** is a "perfectly established entity" (***pariniṣṭhita vastu***), the eternal ***brahman***, identifiable as the true form of being and the essence of reality. As revelatory scripture, what the ***Upaniṣads*** convey is knowledge of what truly is, as it is. They tell us about the absolute entity, being, or reality—***brahman***—in a way that

[16] For details see Jha 1911:187–96; Keith 1921:89–91.

[17] The most detailed elaborations of the Mīmāṃsā approaches to reading the ***Upaniṣads*** are presented as ***purvapakṣa*** positions in Vedāntin sources, particularly in the ***Niyoga Kāṇḍa*** of Maṇḍana Miśra's ***Brahmasiddhi*** and in Sureśvara's ***Sambandha Vārtika***. Commentators on the ***Brahma Sūtras***, such as Śaṅkara, Bhāskara, and Rāmānuja, argue against such views in connection to ***sūtra*** 1.1.4. Śaṅkara's summary representation of the Mīmāṃsā position is particularly concise, and so for convenience I have used it to illustrate the position here.

is fundamentally descriptive. Whatever other content the ***Upaniṣads*** may present, it is all subsidiary to and in the service of the principal meaning, which is ***brahman***.

The Mīmāṃsakas were bound to object to such a reading of Vedic scripture. To them, mere description of reality, even if it could reveal a truth as yet unknown, holds no meaning and is utterly pointless unless it contributes to an understanding of what a human being is meant to ***do***. In order to be meaningful, all passages in the Veda must contribute somehow to an injunction impelling the person addressed to act. Propositional statements that do not enjoin action must be construed as elaborations of the various elements necessary for the completion of an enjoined action, such as the means, the procedures, the agent, or the expected result. Such statements are considered subsidiary to the injunction and utterly pointless without it. To give a contemporary example, to tell someone that "the cup is hot" outside any context of action involving the object would be received as a pointless and irrelevant comment, mere useless information. On the other hand, as subordinate to the injunction "Don't touch that cup!", the description of the object as "hot" assumes purpose and import.

Similarly, Mīmāṃsā exegetes read the Upaniṣadic statements regarding ***brahman*** as subsidiary to Vedic injunctions. Some Mīmāṃsakas understood them to be subordinate to the ritual injunctions of the ***karma kāṇḍa*** by virtue of the fact that they shed light on aspects necessary to the rites, such as the nature of the agent performing them or the deities for whom they were carried out.[18] Alternatively, Mīmāṃsakas identified specific injunctive statements within the ***Upaniṣads*** themselves and construed them as ***upāsanavidhi*** or ***pratipattividhi***, injunctions to meditate upon and come to know the true nature of ***brahman***. According to this approach,

> Because the primary import (of the ***Upaniṣads***) is injunction, just as the rites of the Agnihotra etc. are enjoined for one who desires heaven, so knowledge of ***brahman*** is enjoined for one who desires immortality.[19]

Despite the difference in detail, both of these Mīmāṃsā approaches agree that the primary content of the ***Upaniṣads***, just as of the rest of the Veda, is an injunction to perform an action of some kind and that ***brahman***, as the object of that action, is a mere subsidiary.

In brief, the Mīmāṃsā system employs the related principles of primary and subsidiary for a number of discrete but interconnected purposes. With reference to the ultimate ***goal*** (***artha***) of action, the concepts facilitate the organization of contributory acts and materials into a causal hierarchy delineating the specific role of each factor in the chain of operations leading to accomplishment of the goal. With reference to

[18] *BSŚBh* on 1.1.3: ***karmāpekṣitakartṛdevatādisvarūpaprakāśanena kriyāvidhiśeṣatvaṃ vedāntānām*** "The Upaniṣads are subsidiary to injunctions to ritual action as they illuminate the nature of the agents and deities etc. that depend upon the ritual action."

[19] *BSŚBh* on 1.1.4: ***sati ca vidhiparatve yathā svargādikāmasyāgnihotrādisādhanaṃ vidhīyate evam amṛtatvakāmasya brahmajñānaṃ vidhīyate.***

meaning (also ***artha***), it provides the semantic core of linguistic expression in the form of the verb governing the function of all other parts of speech in the sentence. Furthermore, it constitutes the key for correctly interpreting the meaning of more complex textual expressions by identifying the primary content to which all other elements of a text are subordinate and without which they are irrelevant. In all of these spheres of application, the common denominator is the inseparable connection of meaning and action.

3. In turning to the question of how this Mīmāṃsā framework illuminates the *Bhagavadgītā*, we may begin with the apparently trivial point that the central topic of this epic dialogue is action (***karma***). Arjuna's basic dilemma is whether it is better to act out one's duty and obtain negative consequences or refrain from acting out one's duty and avoid such consequences.[20] He appeals to Kr̥ṣṇa to instruct him as to which of these two options is better (***śreyas***). Kr̥ṣṇa's response is immediate and unequivocal: Arjuna must act.[21] The remainder of the eighteen books is devoted to Kr̥ṣṇa's elaboration of why he must act and how he must act, and Arjuna's final words in the *BhG* are, "I shall do as you say."[22] From the point of view of the plot of the *Mahābhārata*, all that the *BhG* achieves is Arjuna's acceptance to enter the fray, the final response to Kr̥ṣṇa's injunction, "Fight!" Thus, the context of the whole dialogue suggests that the principal purpose of Kr̥ṣṇa's instruction is injunctive and that the other details of his teaching are offered in service of this command.

That the doctrinal parts of the text are in service to Kr̥ṣṇa's injunctions is made logically explicit at numerous points in the text where Kr̥ṣṇa's teachings are presented as ***reasons*** for action. For example, after elaborating for Arjuna his initial doctrine of the imperishable ***dehin***, whereby no one really comes into existence or passes away and therefore no grief over death is ever warranted,[23] Kr̥ṣṇa concludes, "Therefore, fight!" (*BhG* 2.18d: ***tasmād yudhyasva***). The causal adverb ***tasmāt*** makes plain that the whole preceding speech, with all of its philosophical and religious content, is presented as justification for, and thus in service to, the injunction to act. This explicit subordination of the doctrinal content of the text to a primary imperative is found in a significant number of passages (*BhG* 2.37cd ***tasmād uttiṣṭha . . . yuddhāya***; 2.38a ***tato yuddhāya yujyasva***; 2.50cd ***tasmād yogāya yujyasva***; 3.19ab ***tasmād . . . kāryaṃ karma samācara***; 8.7ab ***tasmāt . . . mām anusmara yudhya ca***) and is implied in still others where Kr̥ṣṇa peppers his doctrines with imperatives to act, despite the omission of the tell-tale logical connector 'therefore'.

In the context of Mīmāṃsā hermeneutics, passages subordinated in this way to an

[20] See *BhG* 1.29–46 and 2.4–8.

[21] *BhG* 3.8ab: ***niyataṃ kuru karma tvaṃ karma jyāyo hy akarmaṇaḥ*** "Perform necessary action, for action is better than inaction."

[22] *BhG* 18. 73d: ***karisye vacanam tava***.

[23] *BhG* 2.11–8.

injunction would be termed "object-discourse" (***arthavāda***) and judged meaningful only in relation to that injunction. As Jha wrote, "so far as the ***Arthavāda*** is found to be capable of being construed along with injunctions, it is regarded as authoritative; specially as it serves the distinctly useful purpose of helping the injunction in its persuasive or prohibitive function."[24]

On the basis of this centrality of injunction to Kr̥ṣṇa's address to Arjuna, I propose that the principle of the primacy of injunction in relation to all other aspects of the text directly informed the design of the *BhG* and suggested the method in accordance with which such a diverse set of teachings was to be organized and harmonized into a coherent and unified message.

From the very beginning of the dialogue the unspoken premises of Arjuna's dilemma hint at a play on the Mīmāṃsā analysis of action. In his speech at *BhG* 1.31–7, Arjuna declares that he sees no benefit in the action of battle he is being enjoined to undertake[25] because it will not accomplish a desired result. Victory would lead to sovereign power, enjoyments, and pleasures, but he does not want these for his own sake. Such rewards are only desirable if obtained for the sake of the very kin whom he must slaughter to obtain them.[26] Not only does the phraseology expressing the beneficiary of the results of action, ***yeṣām artha-***, seem a play upon the Mīmāṃsā term ***puruṣārtha-***, but the assertion that action is futile in regard to producing a positive result appears to be a direct challenge to the Mīmāṃsakas;.much of their ingenuity was directed at safeguarding against futility of action.

It is not only because he judges the connection between the enjoined action and the desired result to be impossible that Arjuna despairs. He also considers the actual result accomplished by the action to be a great evil, which he identifies specifically as ***adharma*** (*BhG* 1.38–45). Within the context of Mīmāṃsā, of course, ***adharma*** is precisely that which one is enjoined ***not*** to do, the object of prohibition. Thus, if we read Arjuna's statements with an eye to Mīmāṃsaka technical terminology, we may say that he is being enjoined to perform an action that will fail to produce any positive result and will inevitably produce a negative result that would properly be the object of a prohibition. It is under these circumstances that Arjuna wonders whether it would be more propitious to abstain from action entirely.[27] His logic is obvious: if he does not engage in action, he can neither fail nor produce a negative result.

[24] Jha 1911:122. For details of the classification of ***arthavāda***s and their function and authority, see Jha 1911:115–6 and 121–5. On Jaimini's defense of the authority of the ***arthavāda***s through their subordination to injunctions, see *JMS* 1.2.7 and Göhler 2011:115–6.

[25] *BhG* 1.31cd: ***na ca śreyo 'nupaśyāmi hatvā svajanam āhave*** "I see no benefit to follow in slaying my kin in battle."

[26] *BhG* 1.33: ***yeṣām arthe kāṅkṣitaṃ no rājyaṃ bhogāḥ sukhāni ca, ta ime 'vasthitā yuddhe prāṇāṃs tyaktvā dhanāni ca*** "They, upon whose account we desire dominion, amenities, and pleasures, are arrayed here in battle, casting aside lives and riches."

[27] *BhG* 1.46 ***yadi mām apratīkāram aśastraṃ śastrapāṇayaḥ, dhārtarāṣṭrā raṇe hanyus tan me kṣemataraṃ bhavet*** "It would be greater welfare for me if the sons of Dhr̥tarāṣṭra, swords in hand, should in battle slay me, unresisting and defenseless."

In order to persuade his comrade to act, Kṛṣṇa will need to address Arjuna's analysis of ethical causality and present an alternative to it. In setting out to do so, Kṛṣṇa begins with a critique of the traditional Vedic ritualist perspective on the matter, the foundation of the Mīmāṃsā standpoint.[28] These proponents of the doctrines of the Veda (*vedavādaratāḥ*) are motivated by desire (*kāmātmānaḥ*) and have as their main object the attainment of heaven (*svargaparāḥ*). Their minds are stolen from them by the flowery speech of the Vedas, which actually offers only the consequences of action (*karma*) in the form of rebirth, replete as its content is with a variety of ritual activities (*kriyā*) directed towards obtaining pleasures and power (*bhogaiśvarya*). It is to these fruits that they are attached. Motivated by the fruits of action (*phalahetavaḥ*), such people are pitiful. Kṛṣṇa does not elaborate on why they are deserving of pity because the reasons have already been emotively represented by Arjuna in his detailed presentation of his own predicament: actions do not always lead to the desired result; they may fail or produce the opposite of what one wishes for. Thus, people who put their hopes and expectations on the fruits of action become miserable and hence pitiful. Rather than acting for the sake of results, declares Kṛṣṇa, one must remain indifferent to them. One must put aside both positive and negative results (*sukṛtaduṣkṛte*), the fruits produced by action (*karmajam... phalam*), and respond with equanimity to both success and failure (*siddhi* and *asiddhi*).

As Kunhan Raja suggested in his own treatment of the relationship between the *BhG* and Mīmāṃsā, this rejection of the motivating factor of the fruits of action can well be seen in the context of the internecine debate between Mīmāṃsakas (represented by the Prabhākara school and the Kumārila school in the extant literature) according to which some see the injunctive power of the Veda to rest purely in its communication of the duty to act, while others see the fruits as a motivating factor.[29] In emphasizing the obligation to act without regard to the fruit, the *BhG* may be seen to endorse the former view, and Kṛṣṇa seems to explicitly acknowledge the debt to Mīmāṃsā analysis when he employs the School's technical terminology to tell Arjuna, "Your mandate[30] [*adhikāra*] is for action alone, never for its fruits."[31] At the same time, the two-fold instruction he then issues, "Be neither motivated by the fruits of action nor attached to inaction,"[32] demonstrates that this speech of Kṛṣṇa's is not merely a reflection of an inter-Mīmāṃsā disagreement but has been designed

[28]The passage in question is *BhG* 2.41–53.

[29]See Halbfass 1991:68–9. Maṇḍana Miśra's treatise, *Vidhiviveka*, details the arguments on both sides and defends the latter view of *iṣṭasādhanatā*. On Maṇḍana's treatment, see Frauwallner 1938 and Natarajan 1995.

[30]Other aspects of the term *adhikāra* are captured by alternative translations, e.g. 'entitlement', 'rightful title', 'authorization', 'obligation', 'appointment', 'eligibility', 'qualification'. An excellent outline of the inflection of the term's meaning in different systems of Pūrva- and Uttara-Mīmāṃsā is given in Halbfass 1991:66–74.

[31]See van Buitenen's note to this passage in his translation (van Buitenen 1981:163 n. 13). Halbfass (1991:69), too, recognized the relevance to this *Gītā* passage of the Mīmāṃsā controversy regarding the interpretation of *adhikāra* and its relation to Vedic injunction.

[32]*BhG* 2.47cd: *mā karmaphalahetur bhūr mā te saṅgo 'stv akarmaṇi.*

specifically in response to Arjuna's own dilemma regarding the problem of action and thus underlines the coherence of the text's thematics.

There is something else about Kṛṣṇa's speech at *BhG* 2.41–53 that reveals its indebtedness to Mīmāṃsā theorization in the formulation of its original message, something more subtle, but equally crucial to the foundation of what I will hazard to call the *BhG*'s "system." I mentioned above that the Mīmāṃsā theorization of ritual action relied upon the idea that the status of every element within a particular rite can be determined by defining how it functions as a contributory factor to the single aim of the rite, accounting for the resolution of the diverse factors in an ultimate unity. Kṛṣṇa, however, denies that the Veda offers any unity of purpose. Instead he refers to "the endless and manifold ways of understanding [*buddhayaḥ*] that belongs to those without definitive resolution [*vyavasāya-*],"[33] i.e. to the adherents of the Veda whose ends are many.[34] This, of course, must be read in relation to the closely connected verse regarding the "variety of ritual activities" that the Veda contains, all directed at different goals. Rejecting the ritualists' claim, Kṛṣṇa sees no unity at all to the structure of Vedic knowledge, nor any ultimate aim or final resolution to the rituals it enjoins.

For Kṛṣṇa, only "understanding characterized by definitive resolution is one" (*vyavasāyātmakā buddhiḥ ekā*). The singular *buddhi* is the one introduced a couple of verses previously, at *BhG* 2.39, where it is associated with *yoga*, and the one referred to in the compound *buddhiyoga* further along in the passage (*BhG* 2.49). In the immediate context Kṛṣṇa defines *yoga* twice, first as 'equanimity' (*samatvam*) in response to success and failure (*BhG* 2.48) and then as 'skillfulness in actions' (*karmasu kauśalam*, *BhG* 2.50), by which he means, like the Buddha, the disciplined maintenance of the correct mental attitude in one's engagement with the world. He then concludes the passage by telling Arjuna, "You will attain *yoga* when your understanding (*buddhi*), at odds with the content of Vedic revelation (*śrutivipratipannā*), stands motionless, fixed in concentration (*samādhi*)."[35] Whatever further nuances the term *yoga* may hold, it is clear that here the word refers to a state of mental control whereby one performs all action without regard to the many and varied outcomes to which different actions may lead. As a result, one's understanding of or mental attitude towards action is not subject to constant change depending upon the ends in view: it is 'one'.

Kṛṣṇa tells Arjuna that such singular understanding of action, obtained "in concentration" (*samādhi*) and "characterized by definitive resolution," "is not enjoined"

[33]The full verse (*BhG* 2.41) reads: *vyavasāyātmakā buddhir ekeha kurunandana, bahuśākha hy anantāś ca buddhayo 'vyavasayinām*. Renderings differ considerably, e.g. Edgerton 1944: "The mental attitude whose nature is resolution is but one in this world, son of Kuru; / For many-branched and endless are the mental attitudes of the irresolute"; van Buitenen 1981: "This one spirit is defined here as singleness of purpose, scion of Kuru, whereas the spirits of those who are not purposeful are countless and many-branched"; Patton 2008: "Joy of the Kurus, this insight here is firm in nature, and singular, but the insights of those who waver are endless, with many branches."

[34]Again, van Buitenen's note is insightful here (van Buitenen 1981:162 n. 7).

[35]*BhG* 2.53: *śrutivipratipanna te yada sthasyati niścala, samadhāv acalā buddhis tadā yogam avāpsyasi.*

upon the Vedic ritualists "whose minds are led astray" by the Veda and "who are attached to pleasures and power."[36] The implication, of course, is that this understanding *is* enjoined for those who practice ***buddhiyoga***. This utilization of the concept of injunction suggests a conscious adaptation of the categories of ritualist thought in the fashioning of this doctrine of action. But what, precisely, is this primary injunction?

When Arjuna asks about how one whose understanding has been fixed in concentration should conduct oneself, Kṛṣṇa replies in injunctive mode: "Restraining all [sense-faculties] he should sit, controlled, intent on me."[37]It is the first adumbration that it is Kṛṣṇa, as God, who constitutes the primary purpose of all action as well as the primary content and meaning of the ***Bhagavadgītā***. Crucially, too, it is the first formulation of the injunction to practice Kṛṣṇa-focused ***yoga***, developed in greatest detail at *BhG* 6.10–5 and *BhG* 8.12–6 and related to the performance of action most succinctly in the final book: "Mentally relinquishing (the fruits of) all actions in me, intent upon me, relying upon ***buddhiyoga***, have me in mind constantly!"[38]

It is in the iterations of this primary injunction, I propose, that the organizing principle of the text of the *BhG* may be found. It is thus to be compared to the ***pratipatti-vidhis*** which, as we saw above, were identified as the primary content of the ***Upaniṣads*** according to the Prābhākara Mīmāṃsakas. In similar fashion, the metaphysical, theological, and ethical doctrines of the text are presented as elaborations of an injunction to meditate upon Kṛṣṇa: they clarify the means, the method, and the reasons for the injunction, fulfilling what in the technical vocabulary of Mīmāṃsā is called ***ākāṅkṣā*** 'syntactic expectancy'—the answers to the questions "who, what, when, where, how and why?"[39] For example, the epiphany of Kṛṣṇa in chapter 11 is the culmination of the teaching begun at *BhG* 7.1–3 about how to practice ***yoga*** with mind intent upon him: the elaborate description of God facilitates the enjoined meditation upon him by revealing the details of the content of that meditation. Similarly, the ontological doctrines regarding the relationship of the cosmos to Kṛṣṇa and the ethical doctrines regarding the derivation of all action from the workings of Kṛṣṇa's ***prakṛti*** are presented as ***arthavādas*** subsidiary to the injunction to perform all action as an askesis while meditating upon Kṛṣṇa as the only end.

Furthermore, these doctrines demonstrate that the ritual elements of the sacrificial ground and the sacrificer himself have been displaced by Kṛṣṇa in the execution of the primary injunction: the body of Kṛṣṇa is the field of action, and all action is to be performed for Kṛṣṇa alone, as it is ultimately the product of his agency. The ***puruṣārtha*** of the ritualists has become 'Kṛṣṇārtha'.

Finally, the Veda has been displaced as the authority for the primary injunction:

[36]*BhG* 2.44: ***bhogaiśvaryaprasaktanaṃ tayāpahṛtacetasām, vyavasātmikā buddhiḥ samādhau na vidhīyate*** "Understanding characterized by definitive resolution in concentration is not enjoined for those attached to pleasures and power, whose minds are led astray by that [Vedic speech]."

[37]*BhG* 2.61: ***tāni sarvāṇi saṃyamya yukta āsīta matparaḥ.***

[38]*BhG* 18.57: ***cetasā sarvakarmaṇi mayi saṃnyasya matparaḥ, buddhiyogam upāśritya maccitaḥ satataṃ bhava.***

[39]See Bilimoria 1981.

the authority is now the Lord himself. As Kṛṣṇa says, it is he who bestows ***yoga*** as a means for his devotees to attain him: "I grant ***buddhiyoga***, by means of which they attain to me."[40] Throughout the *BhG*, he conveys this bequest repeatedly with the force of injunction, on the model of the Vedic injunction for sacrifice.[41]

4. Regardless of one's view of the compositional homogeneity of the *BhG*, the identification of the injunction as the notional core of the text would account for its undeniable unity of theme. The principle that every thought, word, and deed is subordinated to and enacted for Kṛṣṇa permits the harmonization and integration of apparently contradictory elements into a coherent, all-embracing vision. In Mīmāṃsā terms, ***karma***, ***jñāna*** and ***yoga***, ***yajña*** and ***saṃnyāsa***, ***tapas***, ***bhakti***, and ***upāsana*** are subsidiary to, directed towards, and serve the purpose of Kṛṣṇa, with the principle unifying them all as the true object and goal of each as well as their ultimate cause. Just as in ritual one does not lay claim to the ***kratvarthas***, the intermediary fruits, but accepts that they contribute to the final goal of the sacrifice that will accrue to the sacrificer, so too should one not lay claim to the diverse fruits of the myriad endeavors or modes of living in which one may engage but should see them all as merely contributory to the grand sacrifice of the Lord's creation.

For those who emphasize the compositional heterogeneity of the text—who view it as having been fashioned over time from a diverse collection of originally distinct and often mutually conflicting discourses—the identification of the methodological affinities between the redactor(s) of the text and their Mīmāṃsaka predecessors provides the key to understanding how they approached their task. In order to reconcile the plethora of discordant doctrines valued by various groups among the adherents of the broader Brahminical traditions, these doctrines needed to be made subsidiary to a primary idea to which they could all be seen to contribute in their own particular ways. A ready-made paradigm for such an undertaking was recognized in the hermeneutic method of Mīmāṃsā, whereby all aspects of a text are to be subordinated to an injunction to act.[42]

Abbreviations

BhG = ***Bhagavadgītā***
BSŚbh = ***Brahma-sūtra-Śaṅkara-bhāṣya***
JMS = ***Jaimini-Mīmāṃsā-sūtras***

[40]*BhG* 10.10cd: ***dadāmi buddhiyogaṃ taṃ yena mām upayānti te.***

[41]This is not to say, of course, that the injunction functions in precisely the same way in the *BhG* as it does among Prābhākara Mīmāṃsakas. In the *BhG*, the compelling force is exercised not by the injunction alone but through the very fabric of nature (*BhG* 18.59), and Kṛṣṇa can speak as though Arjuna still has a choice to make, despite all his imprecations (*BhG* 18.63 "Having fully considered the wisdom that I have declared . . . do as you please!"). It is the function of the injunction as the ***organizing principle of the text*** that I am highlighting.

[42]A detailed review of the textual examples of how this was carried out will left for a future publication.

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Ancient Greek *φείδομαι*

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The verb *φείδομαι* Hom. + (aor. *φείσασθαι* Hom. +, *πεφιδέσθαι* 'spare (an adversary)' Hom. +), which belongs to the PIE root **bʰei̯d-* 'split', has two basic meanings in Ancient Greek, both pairing with a genitive object. The first, and better attested, is 'spare, be thrifty with (something)', e.g. Hom. *Il.* 5.202 *ἵππων φειδόμενος* "sparing the horses" (: *Φείδιππος* PN Hom. +), Hes. *Op.* 604 *μὴ φείδεο σίτου* "Don't be sparing of the grain," Tyrt. 10.14 *θνήισκωμεν ψυχέων μηκέτι φειδόμενοι* "Let us perish, not being sparing of our souls." This also occurs in the absolute use 'be sparing, thrifty' (Thgn. +) and is frequent in the sense 'spare someone/something in war' (Hom. +). This is the meaning that appears in all nominal derivatives of the verb, cf. *φειδώ*, *-οῦς* f. '(act of) sparing, thrift' Hom. +, *φειδωλή* f. 'sparing, grudging use' Hom. +, *φειδωλός* 'sparing, thrifty, avaricious' Hom. +, *ἀφειδέως* 'prodigiously, unsparingly' Alc. +, etc. The second meaning, which is rare and excluded from nominal forms, is 'avoid, abstain (from something)', e.g. Pi. *N.* 9.20 *οὐδὲ Κρονίων . . . στείχειν ἐπώτρυν' ἀλλὰ φείσασθαι κελεύθου* "The son of Cronus . . . urged (them) not to go, but to abstain from their journey," X. *Cyr.* 5.5.18 *ἐν τούτωι κατενόησάς πού με ἢ πόνου ἀποστάντα ἢ τινος κινδύνου φεισάμενον;* "Did you then ever see me shirking toil or avoiding danger?"

Although there is considerable confusion in the literature about how to account for these meanings and bring them in line with the root etymology,[1] the semantic history of this verb is quite straightforward. Both meanings can easily be explained as specializations of an oppositional middle made to an active transitive verb meaning 'split' (bzw. 'separate'). The sense 'spare, be thrifty with' derives from a semantically and syntactically specialized use of an oppositional middle in "self-benefactive" function plus partitive genitive, viz. 'split/separate some of *x* off for oneself/one's benefit' > 'save, spare (some of) *x*' > 'spare, be thrifty with *x*; spare someone'. As a parallel for the basic starting point, cf. Gk. *ἀποτέμνομαι* 'cut off for one's own benefit/use' as at *DGEEP* 83.25 (Argos, 5th c. BCE) *μεδε χορας αποταμνεσθαι μεδατερονς μεδ' α[π]ανσαν αφαιρισθαι* "Let neither party cut off for their own benefit/use a portion of the land nor appropriate for themselves all of it." The second meaning, 'avoid, abstain from something', if not simply a development of the first, falls out transparently from a

[1] See Frisk 1955–72 s.v. and Beekes 2010 s.v. Pokorny (1959 s.v. *bheid-*) seems to assume both meanings are original, as here. For Chantraine 1999 s.v., see the next note.

reflexive middle plus ablative of separation: 'split/separate oneself from *x*' > 'abstain from, avoid *x*.'[2]

The full-grade thematic present φείδομαι (< *b^héi̯do/e-*) has an exact match in Germanic (: Go. *beitan* 'bite', etc.) and a likely correspondent in Old Khotanese act. *bitte*, *bīndi* 'pierce' (< **bida-*).[3] It also pairs with a nasal-infix present (Ved. *bhinátti* 'split' [*bhídyate* 'split apart/in two pieces'], Lat. *findō*, *-ere* 'split; [mid.] burst'), a root aorist (e.g. Ved. *ábhet* : pass. *bhedi*)) and a perfect (e.g. Ved. *bibhéda*). The pairing of a full-grade thematic present with a nasal-infix present closely resembles a pattern that I have outlined among property concept–denoting roots that participate in the Caland system. Here we regularly find an intransitive full-grade thematic present, usually middle but also sometimes active, pairing with a transitive nasal-infix or causative present that serves as its corresponding causative formation; cf. e.g.:[4]

ROOT	THEMATIC PRESENT (INTRANSITIVE)	NASAL-INFIX PRESENT (TRANSITIVE)
*ĝeu̯h_x- 'speed'	*ĝéu̯h_xe/o- > Ved. javate 'speed'	*ĝunéh$_x$-/ĝunh$_x$-´ > Ved. junā́ti 'make speed'
*$h_1$ai̯d^h- 'light up' (= *$h_2$ei̯d^h- LIV²)	*$h_1$ái̯d^he/o- > Ved. édhate 'thrive', Gk. αἴθω 'burn, blaze' Pi. S. (→ αἴθομαι 'id.' Hom.+, αἴθω 'light up, kindle' Hdt. A.+)	*$h_1$inéd^h-/$h_1$ind^h-´ > Ved. indhé 'light up'
*ḱrei̯h_x- 'be/become excellent, distinguished'	*ḱréi̯h_xe/o- > Gk. κρέων, κρείων 'ruler; ruling'	*ḱrinéh$_x$-/ḱrinh$_x$-´ >> Ved. śrīṇā́ti 'make excellent'
*ḱeu̯b^h- 'be/become beautiful'	*ḱéu̯b^he/o- > Ved. śóbhate 'appear beautiful' (: 3rd sg. śóbhe 'id.' RV 1.120.5)	*ḱunéb^h-/ḱunb^h-´ > śumbháti 'make beautiful; decorate' (: Ved. [AVP] śobháyati 'id.')
*$h_1$reu̯d^h- 'be/become red'	*$h_1$réu̯d^he/o- > Gk. ἐρεύθω 'be/become red' B. Hp. (→ ἐρεύθομαι 'id.' Sapph.+, ἐρεύθω 'make red' Hom.+), → ON rjóða 'make red', etc.	*$h_1$runéd^h-/$h_1$rund^h-´ > OIr. -roind 'redden'
*peu̯h_x- 'be/become pure'	*péu̯h_xe/o- > Ved. pávate 'flow pure; purify oneself'	*punéh$_x$-/punh$_x$-´ > Ved. punā́ti 'purify' (: Ved. [AVP] pāváyati 'id.', [YV] paváyati, OHG fouwen, fewen 'strain')
*med- 'be/become full, satiated'	*méde/o- > Ved. mádati 'delight oneself, get drunk', YAv. maδa-^{te} 'get drunk'	*mn̥néd-/mn̥nd-´ > Ved. mándati 'delight, intoxicate' (: Ved. mādáyati 'id.', mādáyate 'delight oneself, get drunk', YAv. māδaiia-^{te} 'id.', etc.)

ROOT	THEMATIC PRESENT (INTRANSITIVE)	CAUSATIVE PRESENT (TRANSITIVE)
*tep- 'be/become warm, hot'	*tépe/o- > Ved. tápati (→ tápate 'be hot', tápati 'heat'), Khot. ttavāre 'are hot'	*topéi̯e/o- > Ved. (AV) tāpáyati 'heat', YAv. tāpaiia-^{ti} 'id.', Russ.(+) topljú, topít' 'id.'
*$h_2$eu̯g- 'be/become strong'	*$h_2$éu̯ge/o- > Lit. áugu (áugti) 'grow', Go. aukan 'increase (intr.)' (→ ON aukan 'increase' tr.)	*$h_2$ou̯géi̯e/o- >> Lat. augeō, -ēre 'increase'
*$h_1$leng^{uh}- 'move effortlessly'	*$h_1$léng^{uh}e/o- > Ved. ráṁhate 'speed, run' (→ ráṁhati 'speed on'; YAv. rəṇja-^{ti} 'id.'), OIr. -ling, -lingat 'jump, leap', OHG gilingan 'succeed'	*$h_1$long^{uh}éi̯e/o- > Ved. raṁháyati 'speed on', YAv. -rəṇjaiia-^{ti} 'id.'
*ḱeu̯k- 'flame up, glow'	*ḱéu̯ke/o- > Ved. śócati 'glow, be light, burn', YAv. part. saociṇt- 'id.'	*ḱou̯kéi̯e/o- > śocáyati 'light up', OAv. saocaiia-^{ti} 'id.'
*g$^{(u)h}$ers- 'be/become excited, happy'	*g$^{(u)h}$érse/o- > Ved. hárṣate 'be excited, happy', Parth. gš- 'id.', Sogd. w-γš- 'id.'	*g$^{(u)h}$orséi̯e/o- > Ved. harṣáyati 'make happy, excite'
*tres- 'tremble (from fear)'	*trése/o- > Ved. trásati 'fear, flee from fear', Gk. τρέω 'id.' Hom.+	*troséi̯e/o- > Ved. (AV) trāsáyati 'frighten', YAv. θrā̊ŋhaiia-^{te} 'id.', Lat. terreō, -ēre 'id.'

This pattern, which is not limited to roots with Caland system associations, represents one fairly common way that inner-PIE (that is, PIE after the branching of

[2]Chantraine (1999 s.v.) argues that the original meaning was 'separate oneself from *x*' and that this developed into 'spare, preserve *x*'. This approach has the Greek distributional facts against it, and would require an unnatural semantic development. A simpler analysis would be to assume that the original meaning was 'spare' and that in usages like X. *Cyr.* 5.5.18 cited above the sense 'be sparing of, thrifty with' was reanalyzed as 'avoid, abstain from' and then marginally extended.

[3]Provided this is a zero-grade remodeling of the form in question based on the *ta*-stem verbal adjective. See *LIV*² 2001: s.r. *b^hei̯d- with lit.

[4]See Rau 2009:146ff. and 2013 for discussion and additional examples.

Proto-Anatolian and Proto-Tocharian) and the ancestor of Greek and Indo-Iranian, in particular, instantiated the "causative alternation."[5, 6] This pairing is well attested across all the cross-linguistically typical verbal categories that participate in this alternation, including those that denote states (property concept, position/location, result) and activities (manner of motion, light emission, etc.); cf. e.g.:[7]

ROOT	THEMATIC PRESENT (INTRANSITIVE)	NASAL-INFIX/ CAUSATIVE PRESENT (TRANSITIVE)
*temk- 'be/become firm, congeal'	*témke/o- > Go. (+) *þeihan* 'thrive'	*tm̥nék-/tm̥nk-´ > Ved.(YV) *ā́tanakti* 'make congeal', OIr. *-téici* 'curdle', Hitt. *tamenk-*^{zi} 'attach'
*sh$_2$eu̯s- (bzw. *sau̯s-) 'be/become dry'	*sh$_2$éu̯se/o- > YAv. *haoša-*^{te} 'become dry', → Gk. *αὔω*· *ξηραίνω* Hdn.	*sh$_2$ou̯sée̯/o- > Ved. (AV) *soṣáyati* 'dry', OCS *sušǫ*, *sušiti* 'id.'

[5] The term "causative alternation" is used to characterize verbs that have transitive and intransitive uses, where the transitive means in effect 'cause the state or activity denoted by the intransitive'. For useful overviews, see Levin 1993 and Levin and Rappoport Hovav 1995, and for aspects of the IE context, Kulikov 2012, Malzahn 2014 and Grestenberger 2014. In terms of how causation is conceptualized, verbs can usefully be divided into four classes: agentive (murder, assassinate), externally caused (destroy, kill), internally caused (blossom, wilt), and cause-unspecified (break, open). See Alexiadou, Anagnostopoulou, and Schäfer 2006. As has long been recognized, only verbs that do not require agentive causation participate in the alternation. All the verbs outlined below belong to the internally caused and cause-unspecified classes.

[6] It is important to note that this is simply one way in which the "causative alternation" was instantiated in the proto-language. There were additional patterns, mostly distinguishable by the morphology used to form the intransitive member of the opposition:

INTRANSITIVE PRESENT FORMANTS	TRANSITIVE PRESENT FORMANTS
Full-grade athematic middles, e.g. Hitt. *ze-*$^{a(ri)}$ 'cook' (: *zanu-*^{zi} 'cook')	Nasal-infix presents
Zero-grade athematic middles, eg. Hitt. *ur-*^{āni} 'burn' (: *warnu-*^{zi} 'burn')	Iterative-causative presents
Full-grade thematic middles/actives, e.g. Ved. *śóbhate* 'appear beautiful' (: *śumbháti* 'make beautiful; decorate')	*eh*$_2$-factitives
ske/o-presents, e.g. YAv. *tafsa-*^{ti} 'become hot' (: YAv. *tāpaiia-*^{ti} 'heat')	*-eh$_1$ plus *dʰeh$_1$-
i̯e/o-presents, e.g. Ved. *mriyáte* 'die' (: [AP] *mārā́yati* 'kill')	
-eh$_1$*-i̯e/o/-ske/o*-presents, e.g. Lat. *rubeō* 'be/become red', *rubēscō* 'become red' (: *rubefaciō* 'make red')	
-eh$_1$ plus *h$_1$es-, e.g. Ved. *gúhā as-/bhū-* 'be/become hidden' (: *gúhā dhā-* 'hide')	

The individual branches in part differ in how they pair these formants and which pairings they have productively extended among which semantic subclasses.

[7] The intransitive full-grade thematic present type, which I outline here as a single class and which is also common among roots that do not have a transitive counterpart, actually contains two different inputs—a

middle and an active formation, which are descriptively and, originally at least, semantically and derivationally distinct. I treat them as a single class because of the difficulty of determining what is original in some cases, either because both active and middle forms are attested, or because of the tendency for actives to get remodeled as middles (*et vice versa*, in some semantic subclasses), or because the forms in question are attested only in Germanic or Baltic where it is impossible to know the original voice.

As I have argued (Rau 2013:258ff.), the middle component of this type, which in its unitary thematic form seems to be an innovation of the later proto-language, contains several different inputs, illustrated below:

INTRANSITIVE FULL-GRADE THEMATIC MIDDLE INPUT TYPES

- Intransitive full-grade thematic middles', e.g. Ved. *śráyate* 'lean on', YAv. *sraiia-*^{te} 'id.' = TA *kaltär*, B *kälytär* 'stand'. See Jasanoff forthcoming.
- Full-grade root athematic middles remodeled as thematic stems, e.g. Ved. *śóbhe*' 'appear beautiful': *śóbhate* 'id.'.
- Zero-grade root athematic middles derivationally redone after the full-grade pattern, e.g. TA *sikamṭär* 'are flooded': Ved. *sécate* 'pour, flow out', Av. *haēca-*^{te}* 'id.'.
- Intransitive full-grade thematic middles oppositional to transitive full-grade thematic actives, e.g. Lat. *angitur* 'be/become squeezed, constricted': *angō*, *-ere* 'squeeze, constrict, strangle'.
- Intransitive full-grade thematic actives remodeled as middles, e.g. Gk. *αἴθω* 'burn, blaze' Pi. S. (: *αἴθουσα* 'portico' Hom. +): *αἴθομαι* 'id.' Hom. +, Ved. *édhate* 'thrive'.

To understand the original semantic and derivational parameters of the intransitive full-grade thematic active type, it is important first to note that full-grade thematic presents (with non-complex thematic suffixes) in inner-PIE fall into at least four semantically coherent and well-defined groups:

FULL-GRADE THEMATIC SEMANTIC SUBCLASSES

- Transitive and intransitive verbs denoting sound emission/speech acts, e.g. *bʰrem- 'roar, bellow', *dʰreu̯- 'call loudly', *dʰu̯en- 'sound', *ĝʰu̯eh$_x$- 'call', *kens- 'make known, speak solemnly', *ḱep- 'cuss', *neu̯h$_x$- 'roar, shout'
- Transitive and intransitive cognitive-perceptual-psych verbs, e.g. *bʰeu̯dʰ- 'perceive, be/become aware/conscious of; wake up', *g$^{(u)h}$eu̯s- 'hear', *h$_2$u̯ei̯s- 'hear', *kʷei̯- 'see, perceive', *kʷeḱ- 'see, perceive', *ser- 'see, watch', *(s)mer- 'have in mind; remember', *u̯el- 'see, perceive'
- Intransitive verbs denoting activities (+/– COS), including manner of motion (e.g. *dreu̯- 'run', *dʰeu̯- 'run', *dʰeu̯h$_x$- 'move quickly here and there', *k$^{(u)}$remh$_x$- 'step', *kʷelh$_1$- 'make a circuit', *peth$_x$- 'fly', *serp- 'creep', *sreu̯- 'flow', *i̯es- 'boil'), weather-related phenomena (e.g. *h$_2$u̯ers- 'rain', *sneigʷʰ- 'snow'), bodily function (e.g. *h$_3$meiĝʰ- 'urinate', *neu̯- 'nod', *h$_1$reu̯g- 'vomit'), and light emission (e.g. *bʰreh$_x$ĝ- 'shine', *gu̯elh$_x$- 'burn', *bʰleig- 'shine')
- Transitive verbs denoting activities (+/– COS), e.g. *der- 'tear, flay', *drep- 'pluck', *ḱreth$_2$- 'hit', *kʷem- 'suck', *lep- 'peel', *peḱ- 'comb', *pleḱ- 'plait' (+' bringing/leading, e.g. *bʰer- 'bring, carry', *h$_x$aĝ- 'lead, drive', *nei̯h$_x$- 'lead'; acquiring/distributing, e.g. *h$_1$em- 'take', *nem- 'distribute', *bʰag- 'take'; and burning/cooking, e.g. *dʰegʷʰ- 'burn', *pekʷ- 'cook', etc.)

As Jasanoff (1998 and 2003) has argued, the thematic present classes have a chronologically and derivationally complex history (see Jasanoff 1998:301ff. and 2003:64ff., 224ff. for the background of at least some of the verbs here), and do not represent a unitary type. Despite this, it is remarkable to note that most of the classes outlined here denote activities (plus or minus a state or directed motion component) and naturally involve duration or repetition, something reflected in the fact that a large percentage of thematic presents co-occur with iterative formations. Note that nearly all the intransitive full-grade thematic active presents participating in the "causative alternation" listed here are intransitive verbs denoting activities.

*u̯lei̯k^{u}- 'be/become wet'	*u̯léi̯k^{u}e/o- > Lat. līquor, -ī 'be fluid, flow' Pl. +	*u̯linék^{u}-/u̯link^{u}-´ > Lat. pollingō, -ere 'wash (a corpse)'
*h$_{x}$u̯eRd^{h}- 'become great/strong'	*h$_{x}$u̯éRd^{h}e/o- > Ved. várdhate 'grow' (→ várdhati 'strengthen', OAv. varəda-^{ti} 'id.')	*h$_{x}$u̯oRd^{h}éi̯e/o- > Ved. vardháyati 'strengthen', YAv. varədaiia-^{te} 'id.'
*leu̯k- 'be/become light'	*léu̯ke/o- > Ved. rócate 'shine, be light', YAv. part. raocint- 'id.'	*lou̯kéi̯e/o- > Ved. rocáyati 'light up', YAv. raocaiia-^{ti} 'id.', OLat. lūceō, -ēre 'id.', etc.
*ḱerh$_{2}$- 'mix'	*ḱérh$_{2}$e/o- > OAv. sāra-^{te} 'mix with'	*ḱr̥néh$_{2}$-/ḱr̥nh$_{2}$-´ > Gk. κίρνημι 'mix' Hom. +
*kseu̯d- 'scatter, dissolve into small parts'	*kséu̯de/o- > Ved. kṣódate 'fall into small parts' (→ kṣódati tr. RV 7.58.1), MP(+) šōδ- 'grow'	*ksou̯déi̯e/o- > Ved. kṣodáyati 'spray out'
*neb^{h}- 'rupture, burst'	*néb^{h}e/o- > Ved. nábhate 'rupture, burst'	*nob^{h}éi̯e/o- > Ved. (AVP) nambhayati, (Br.) nabhayati 'rupture, burst (tr.)'
*(s)kedh$_{2}$- 'split, strew'	*(s)kédh$_{2}$e/o- > Lith. kedù (kedė́ti) 'rupture, burst'	*(s)kə$_{2}$dnéh$_{2}$-/(s)kə$_{2}$dnh$_{2}$-´ > Gk. σκίδνημι 'strew' Hom. +, → YAv. scindaiia-^{ti} 'destroy'
*sei̯k^{u}- 'pour out'	*séi̯k^{u}e/o- > Ved. sécate 'pour, gush out' (RV 10.96.1), Av. haēca-* (: OAv. Haēcaṯ.aspa- PN 'the one whose horses pour/rush out'?), → OHG(+) sīhan tr. 'strain, filter'	*sinék^{u}-/sink^{u}-´ > Ved. siñcáti 'pour out', YAv. hinca-^{ti} 'id.', Sabel. *simpe- 'id.' (: YAv. us . . . haēcaiia-^{ti} 'empty')[8]
*tu̯er- 'drive on, speed'	*tu̯ére/o- > Ved. (KS) tvárate 'speed', OE ðweran 'move, stir'	*tu̯r̥néu̯-/tu̯r̥nu̯-´ > Gk. ὀτρύνω 'speed on, encourage' Hom. +
*ǵ^{h}u̯er- 'move in a crooked way'	*ǵ^{h}u̯ére/o- > Ved. hvárate 'stumble', ŚB hválati 'id.' (: RV ávihvarant-), YAv. part. zbarənt-, zbarəmna- 'id.'	*ǵ^{h}u̯r̥néh$_{x}$-/ǵ^{h}u̯r̥nh$_{x}$-´ > Ved. ví hruṇāti 'make go astray' (: Br. hvārayati)
*h$_{x}$eiǵ- 'move oneself strongly'	*h$_{x}$éiǵe/o- > Ved. éjati 'stir, quiver'	*h$_{x}$inéǵ-/h$_{x}$inǵ-´ > Ved. iṅgáyati 'set in motion' (: KS + ejayant-)

[8]The Sabellic verb is possibly reflected in Lat. simpuuium, simpulum 'ladle used in sacrifices', if a Sabellic loan, as suggested by Rix (apud LIV^{2} 523) and independently Fortson (2008:66–7), who also suggests that Italic inherited a full-grade thematic present here.

*trem- 'tremble (from fear)'	*tréme/o- > Gk. τρέμω 'tremble, fear' Hom. +, Lat. tremō, -ere 'id.'	*troméi̯e/o- >> Umbr. tremitu 'make tremble'
*b^{h}remh$_{x}$- 'be/become unsteady'	*b^{h}rémh$_{x}$e/o- > Ved. (BĀU) bhrámati 'blaze'	*b^{h}romh$_{x}$éi̯e/o- > Ved. (Sū) bhrāmáyati 'drive here and there'
*h$_{1}$rem- 'be/become still, quiet'	*h$_{1}$réme/o- > Ved. rámate 'come to rest', YAv. rāma-^{te} 'linger, pause'	*h$_{1}$roméi̯e/o- > Ved. rāmáyati 'brings to rest' (: Ved. ramṇā́ti 'id.'), YAv. rāmaiia-^{ti} 'id.', OIr. -fuirmi 'set, lay')
*u̯ert- 'turn oneself'	*u̯érte/o- > Ved. vártate 'turn oneself, roll', → YAv. varəta-^{ti} 'turn' tr., etc.	*u̯ortéi̯e/o- > Ved. vartáyati 'turn', etc.
*nem- 'bend oneself, bow'	*néme/o- > Ved. námati 'bend oneself, bow' (→ námate 'id.', námati tr.), YAv. -nəma-^{te} 'id.' (: YAv. -nāma-^{te} Yt. 57.18, Yt. 19.25)	*noméi̯e/o- > Ved. namáyati 'bend', YAv. nāmaiia-^{ti} 'id.'
*ḱlei̯- 'lean on'	*ḱléi̯e/o- > Ved. śráyate 'lean on' (→ śráyati tr.), YAv. sraiia-^{te} 'id.', → Latv. sleju (sliet) tr.	*ḱl̥néi̯-/ḱl̥ni̯-´ > YAv. -sərənao-^{ti} 'lean on', Gk. κλίνω 'id.' Hom. +, etc.
*i̯et- 'position oneself'	*i̯éte/o- > Ved. yátate 'firmly position oneself' (→ yátati tr.), Lat. nītor 'lean, support oneself on'	*i̯otéi̯e/o- > Ved. yātáyati 'position firmly', YAv. yātaiia-^{ti} 'id.'

Based on this pattern, especially as it is found with the result state–oriented roots *ḱerh$_{2}$-, *neb^{h}- and *(s)kedh$_{2}$-, it is possible to reconstruct for inner-PIE a "causative alternation" pair here, viz. *b^{h}éi̯do/e-$^{tor/i}$ intr. 'split': *b^{h}inéd-/b^{h}ind-$^{´ti/tor/i}$ act. tr. 'split', mid. tr. (self-benefactive, reflexive, reciprocal) and intransitive.[9]

There are two ways to explain how this starting point resulted in what we have in Greek, Germanic and possibly Khotanese. A first possibility is to assume that a transitive full-grade thematic active *b^{h}éi̯do/e-^{ti} was backformed directly from the intransitive middle and eventually displaced the inherited nasal-infix present, with Greek ultimately generalizing the middle and Germanic and Khotanese the active, viz. *b^{h}éi̯do/e-$^{tor/i}$ intr. 'split': *b^{h}inéd-/b^{h}ind-$^{´ti/tor/i}$ act. tr. 'split', mid. tr. (self-benefactive, reflexive, reciprocal) and intransitive → *b^{h}éi̯do/e-$^{tor/i}$ intr. 'split', tr. (self-benefactive, reflexive, reciprocal): *b^{h}éi̯do/e-^{ti} tr. 'split'. This type of backformation is well attested

[9]This functional distribution is reflected directly in e.g. śumbháti act. tr., mid. tr. reflexive and intransitive (RV 6.64.2) (and passive): Ved. śóbhate intr.

in the individual languages. In Vedic and Avestan, it resulted in many transitive full-grade thematic actives that came to compete with inherited nasal-infix and causative presents and that in Vedic, at least in the post-*Rigveda* period, were largely eliminated in favor of the causative.[10] In Greek, this process applied more or less systematically,[11] with the generalization of either the thematic or the nasal-infix form, and resulted in the large-scale elimination of the "causative alternation" pattern outlined here. Similar developments hold for Germanic.

A second and more interesting possibility is to assume that the development outlined above took place as a result of a more complex process. Here we might conjecture that the originally intransitive full-grade thematic middle first took on reflexive (and reciprocal) and self-benefactive functions, in effect patterning as a functional analogue of the oppositional middle of the transitive nasal-infix or causative present, viz.:

**bʰinéd-/bʰind-*$^{'ti/tor/i}$		**bʰéi̯do/e-*$^{tor/i}$	→	**bʰinéd-/bʰind-*$^{'ti/tor/i}$		**bʰéi̯do/e-*$^{tor/i}$
ACT.	MID.	MID.		ACT.	MID.	MID.
Tr.	Tr. SB[12]			Tr.	Tr. SB	Tr. SB
	Tr. RF/RC				Tr. RF/RC	Tr. RF/RC
	Intr.	Intr.			Intr.	Intr.

Greek may then have reached this stage of development and eliminated the nasal-infix present directly, or like Germanic and possibly Khotanese have first backformed a transitive full-grade thematic active. Some originally intransitive full-grade thematic middles participating in the "causative alternation" may in fact have taken on reflexive and self-benefactive functions already in the late proto-language (at least in the ancestor of what became Greek and Indo-Iranian). This is indicated by two facts: (1) the extension of reflexive meaning to the intransitive member of the alternation in some cases in Vedic, so clearly in *pav*^{i}- 'purify'—

punā́ti/punīté		*pávate* 'flow pure; purify oneself'
ACT.	MID.	MID.
Tr. ✓	Tr. SB/A ✓	Tr. SB/A ✗
	Tr. RF/RC ✓	Tr. RF/RC ✓[13]
	Intr. ✓ (e.g. RV 10.70.3) (+ passive)	Intr. ✓?

[10] See Gotō 1987:52.

[11] Note the examples in the tables above and see Rau 2009:152ff. and 2013:258ff.

[12] SB = self-benefactive, RF = reflexive, and RC = reciprocal.

[13] On the reflexive reading of *pávate*, which is natural in the context of the Soma hymns as the honorand has pointed out to me, see Jamison and Brereton 2014 *ad* RV 9.1. Note that this reading is not a natural component of the meaning of this verb. This contrasts with verbs of change of position or location, like Ved. *śráyate* 'lean on; incline oneself', where both readings are natural and possible. Verbs of this latter type provide an easy starting point for the functional extension highlighted here.

—and (2) the creation in Vedic and Avestan of oppositional full-grade thematic middles in reflexive and self-benefactive function that replicate morphologically what is found in the "causative alternation" but that are made to verbal roots with relatively high agentivity which should have been excluded from this alternation. Thus YAv. *aṇku.paēsəmna-* 'decorating oneself with hooks' Yt.17.10 and *aipi.pārəmna-* 'submitting oneself to confiscation (as a means of reparation)' V.8.107,[14] which function as reflexives to the nasal-infix presents **pinas-*^{ti} 'decorate; beautify' (: OP *pinθ-* 'id.', Ved. *pim̐śati* 'cut out; decorate') and YAv. *pərənao-*^{ti} 'confiscate (as a means of reparation)' A 3.10–3, respectively,[15] and Ved. *cáyate* 'take vengeance on/for, punish', which functions as a self-benefactive to the reduplicated present YAv. *cikaii-*^{ti} 'pay, pay for (an offense)' V.7.38+ and duplicates exactly the semantic relationship between Gk. *τίνυμαι/τίνομαι* 'take vengeance on/for, punish' Hom.+ and *τίνω* 'pay, pay for; discharge (an obligation)' Hom.+.[16]

Abbreviations

DGEEP = Schwyzer, Eduard. 1923. *Dialectorum Graecarum exempla epigraphica potiora*. Leipzig: Hirzel.

LIV^{2} = Kümmel, Martin, and Helmut Rix (eds.). 2001. *Lexikon der indogermanischen Verben: Die Wurzeln und ihre Primärstammbildungen*. 2nd ed. Wiesbaden: Reichert.

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[14] The long vowel is presumably analogical to that in *pāra-* 'debt.' See Kellens 1984:117, who, however, suggests that the verb is denominative.

[15] Note also YAv. *frapiriia-*^{te} 'submit (*tanūm* V.4.7, *x*ᵛ*arənō* V.5.2) to confiscation', which seems to have undergone a development from passive to reflexive/self-benefactive and then self-benefactive more generally—a development that resembles what is being conjectured here.

[16] See also Gotō 1987:133 n. 164, who tentatively invokes the morphological pattern used here to explain the form, but suggests that it may in the first instance have been intransitive. I assume that the use of the middle with the aggrieved party as subject originally meant something like 'pay to oneself (compensation in respect to) the offense/offending party.' Note that in Gk. *τίνω* is used not just to denote payment for an offense committed, but also for discharging any obligation, whether good or bad, more generally.

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Hittite *uktūri-*: A "Thorny" Problem in Anatolian*

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1 Introduction

This article, dedicated to the *doyenne* of American Indo-European linguistics and Sanskrit studies, and the honorand of this volume, is meant as a small token of admiration not only for her scholarly work, but also for her personal generosity and kindness. In what follows etymologies are proposed for three Hittite words:

a) ***uktūri-*** 'imperishable',
b) ***uktūri*** 'forever',
c) ***uktūri-*** 'cremation site'.

These proposals, moreover, will contradict the *communis opinio* that Anatolian, and specifically Hittite, does not show metathesis of inherited PIE sequences of dental/alveolar plus tectal (**-TK-*), which gave rise to the interdental fricatives [þ] and [đ].

2 Philological facts

Most of the philological facts are easily accessible for the words in question in the handbooks (*HEG U* 27–32, *EDHIL* 912–3). Further attestations were kindly made available to me by Jürgen Lorenz (pers. comm.).

2.1 *uktūri-* 'imperishable'

The semantic range of the adjective ***uktūri-*** is undisputed: in connection with gods and humans it means 'eternal, everlasting'; similarly with concrete objects such as pieces of copper, temples, cities, corners of the world, stones, bread, etc., where it is

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used for 'everlasting, permanent, imperishable'; and finally with abstract notions and actions such as life, marriage, words, allotment, rules, festivals, and positions that are characterized by ***uktūri-*** as 'everlasting, regular', or 'normal', cf. examples (1) and (2):

(1) *k[ī]* $^{\text{NA}_4}$*pēru maḫḫan uktūri BELU U* DAM=*SU* DUM[U.MEŠ=*Š*]*U QATAMMA uktūriyēš ašandu*
"As this stone is everlasting, the lord and his wife and sons shall likewise be everlasting." (KBo 15.10 ii 5)

(2) *[n]u=za uktūrin* UDUN-*in IBNI*
"He (*scil.* the vegetation god Telipinu) built a fireproof/imperishable furnace." (KBo 26.124+ iii 27′; ibid. iii 28′, where probably another god melts iron in it)

The inflection of this adjective is remarkable for the fact that, unlike most Hittite adjectives (e.g. nom. sg. *šalliš* 'great', gen. sg. *šallaš* < *šallay-aš*), the stem-final *-i-* of ***uktūri-*** does not show any ablaut. The same is true for the denominal derivatives ***uktūriēšš-*** 'become lasting' and ***uktūriyaḫḫ-*** 'make lasting' with its imperfective stem *uktūriyaḫḫeške/a-*. Cf. the following representative list of attestations for the adjective:

nom. sg. c. *uk-tu-ri[(-iš)]* (KBo 4.1 i 8)
acc. sg. c. *uk-tu-ri-in* (KBo 4.14 iv 12)
nom./acc. sg. n. *uk-tu-u-ri* (KBo 15.10 ii 5)
dat./loc. sg. *uk-tu-u-ri-i=š-ši* (KUB 4.1 i 36)
nom. pl. c. *uk-tu-u-ri-i-e-eš* (KBo 15.10 ii 5)
acc. pl. c. *uk-tu-u-ri-uš* (KBo 49.189+ i 6′)
nom./acc.pl. n. *uk-tu-u-ri* (KUB 4.1 i 13)
dat./loc. pl. *uk-tu-r[i-y]a-aš-š=a* (KUB 36.89 obv. 4)

Contrary to what is found in the handbooks, the alleged form *wa-a[k-t]u-u-ri-iš* (KUB 33.120 i 6, characterizing the gods Enlil and Ninlil) must be regarded as a ghost word, as has been demonstrated recently by Corti and Pecchioli Daddi (2012:614–6). The word can now be read as *wa-a[l-l]i-u-ri-iš* and is wholly unconnected with ***uktūri-*** 'imperishable'.

2.2 *uktūri* 'forever'

The adverb ***uktūri*** 'forever' seems to be an offshoot of the nom./acc. n. sg. of the adjective. Its semantics are unremarkable, cf. example (3):

(3) *nu=wa tuk ḫaššān uktūri=pat* LUGAL-*waš* MUNUS.LUGAL-*aš* DUMU.MEŠ.LUGAL *ḫaššeš ḫanzaššeš anda ḫulališkandu*
"The king and queen's children, grandchildren and great-grandchildren shall circulate around you, o hearth, forever!" (KBo 17.105 ii 23–4)

2.3 *uktūri-* 'cremation site'

The noun ***uktūri-*** denotes both a cremation site for corpses and an incineration dump for impure remnants of rituals, cf. Otten 1958:141 and examples (4)–(6):

(4) *nu* MUNUS.MEŠ *uktū[riy]a ḫaštiaš leššuwanzi pānzi*
"The women go to the cremation site to collect the bones." (KUB 30.15+ obv. 1)

(5) *takku* UN-*an kui[(ški)] parkunuzzi kuptarr=a [(ukt)]uriyaš pēdā[i] takku=at* A.ŠÀ-*ni našma parn[(i ku)eilka p[(edāi)] alwanzatar*
"If anyone performs a purification ritual on a person, he disposes of the remnants (of the ritual) in the incineration dumps. But if he disposes of them in someone's field or house, it is sorcery." (KBo 6.5 iv 17–20 with dupl.)

(6) *t=an parkunuddu* KUR-*S[U=ya park]unuddu n=at uktūriyaš pēdau uktū[ri]yaš=šan* AN.BAR *palḫiš kitta ištapp[u]lli=ššit šūl[iy]aš*
"He shall purify him and purify his land as well. He shall carry it to the incineration dumps. In the incineration dumps lies a vessel of iron. Its lid (is made) of lead." (KUB 9.11 + IBoT 3.98 + KUB 28.82 i 20–3)

The noun is normally thought to be an *i*-stem, and there is no counterevidence to this assumption, since neither nom. sg. nor acc. sg. is attested;[1] cf.:

d.-l. sg. *⸢uk⸣-tu-u-ri-ya* KUB 30.17 obv. 15
all. sg. *uk-tu[-u-ri-y]a*$^{?}$ (KUB 30.15+ obv. 1)
abl. *uk-tu-ri-ya-az* (KUB 30.15+ obv. 46)
d.-l. pl. *⸢uk⸣-[(tu-u-ri-aš)]* (KBo 6.2 ii 34); *uk-tu-u-ri-ya-aš* (KUB 9.11+ i 21)

3 Previous research

The question that immediately arises is whether we are dealing with homonyms or whether there is a common origin for the three lexemes. Gertz (1982:15f., 111f.) assumed the latter and took the starting point for all three to be the noun ***uktūri-*** 'cremation site', on the grounds that the lack of ablaut in the suffix would be regular here. One might object, however, that the implausible semantic development of 'cremation site' to 'imperishable' poses a serious difficulty for this suggestion.

Tischler, on the other hand (*HEG U* 28), started from the adjective ***uktūri-*** 'imperishable' and regarded the noun ***uktūri-*** 'cremation site' as a substantivization or

[1] KUB 30.15+ obv. 43 ***nu kī uktū[ri]*** (§) cannot count as an assured nom. sg. n. (thus Kassian, Korolëv, and Sidel'tsev 2002:260, "and these are (the actions with) the pyr[e.]"), since the sentence is rather to be translated as "this (happens) at the cremation site".

ellipsis, meaning 'eternal (fire)'. A modification of this was proposed by Kloekhorst (*EDHIL* 912f.), who suggested an original meaning 'fire-proof (place)'. Neither suggestion is wholly convincing, since the problem of the lack of ablaut in the adjective is not solved by either. Moreover, there is no indication in Hittite literature for the existence of an eternal fire. Nor, finally, is it altogether likely that a cremation site would be called a "(place which is) not burning" (cf., however, ***uktūrin*** UDUN-*in* 'fireproof/imperishable furnace' in KBo 26.124+ iii 27′).

As for the root etymology, there have been two main proposals (cf. references in *HEG U* 31). One is that of Puhvel (1972:115), followed by Weeks (1985:80, 186, 203), who connected ***uktūri-*** 'imperishable' with PIE *$h_2eu\hat{g}$- 'become strong, grow' (LIV^2 245; Lat. ***augēre*** 'make grow', Skt. ***ójas-*** 'strength', etc.). But since most scholars would agree that *h_2 should have been preserved in Hittite, a derivation from *$h_2eu\hat{g}$- seems phonologically impossible. Ajxenval'd, Bajun, and Ivanov (apud *HEG U* 31, ***non vidi***), in contrast, advanced the idea that PIE *$\underset{\frown}{u}e\hat{g}$- 'be lively' ($LIV^2$ 601f.; Skt. ***vāja-*** 'strength, vigor; speed; fight', Lat. ***vegēre*** 'be awake; wake up, stir', Go. ***wakan*** 'be awake' etc.; cf. already Duchesne-Guillemin 1946:91) is the root underlying both Hitt. ***uktūri-*** 'cremation site' and Av. ***ātrə-vazana-*** 'Feuerwedel', Skt. ***upa-vājáya-*** 'fan, kindle'. But the connection with fire is clearly secondary and extremely weak: it comes into play only when fire is explicitly mentioned either as the first member of a compound (Av. ***ātrə-vazana-*** 'Feuerwedel') or the object of a verb (Skt. ***upa-vājáya-*** 'fan, kindle', *Taittirīya-Saṃhitā*). Kloekhorst (*EDHIL* 912f.) makes no mention of his predecessors, but refers to the semantic suitability of the root *$\underset{\frown}{u}e\hat{g}$-, probably having ***uktūri-*** 'imperishable' in mind.

In addition to the phonological and semantic problems just mentioned, these proposals are no more than root etymologies. The word formation remains unclear. The comparison of the suffix with Skt. *-uri-*, as in ***aṅg-úri-*** 'finger' (Rieken 1999:354) is also of little explanatory value, since this Caland suffix combination has a clearly secondary origin.

4 New proposal for *uktūri-* 'cremation site'

The new proposal that will be made here for ***uktūri-*** 'cremation site' has PIE *d^heg^{wh}- 'burn' (LIV^2 115f.) as its starting point. This root is semantically very attractive for the etymology of the name of a 'cremation site'. The root is well attested, e.g. in Skt. ***dáhati*** 'burns', Av. ***dažaiti*** 'burns', Lith. ***degù, dègti*** 'burn, kindle', etc. It is also the basis for derivatives such as the fientive verb *d^hg^{wh}-eh_1- (in Skt. ***kṣā́-yati*** 'burns (intr.)', LIV^2 115) and the root extension *d^hg^{wh}-$e\underset{\frown}{i}$- (in Ved. imper. ***kṣidhí*** 'destroy!', ***ákṣita-*** 'imperishable', Gr. ἔφθιτο 'he perished', etc., LIV^2 131f.). As a consequence of derivation and root extension, the root *d^heg^{wh}- is reduced to its zero-grade *d^hg^{wh}-, giving rise to an initial #TK- cluster already in PIE.

4.1 Metathesis of initial *d^hg^{wh}-

The various views that have been expressed on the phonological development of such clusters cannot be rehearsed here in full (e.g. Schindler 1967 and 1977; McCone 1986:48; Mayrhofer 1986:151–8; LIV^2 132 n.1; Melchert 2003; Pinault 2002[2006]:118–26; Steer 2013). The main issue for the etymology in question is that, according to the ***communis opinio***, Anatolian and Tocharian do not show the effect of the metathesis **(-)TK- > *(-)KT-* and subsequent sound changes. Since Petersen (1933:23–4), this has been used as an argument for the assumption that Anatolian and Tocharian branched off early, before the other Indo-European daughter languages underwent the metathesis as a common innovation that allows us to posit the node for "Core" or "Inner" Indo-European in the ***Stammbaum*** (cf. *AHP* 64 and Kimball 1999:258 on this line of argument).

The assumption that Hittite never participated in the metathesis **(-)TK- > *(-)KT-* has rightly been challenged by Melchert (*AHP* 64), who claimed that in ***ḫatk-*** 'shut' and ***tekan/takn-*** 'earth', **(-)TK-* can always have been restored if Schindler's (1977:32–3) restriction of the metathesis to tautosyllabic position is correct. In these cases it is the occurrence side by side of metathesized and non-metathesized allomorphs in the paradigm that would have led to the restoration. The third word, Hitt. ***ḫartagga-*** 'bear' < *$h_2\c{r}t.\hat{k}o$-, would never have been metathesized. Therefore, the suggestion of a reflex of metathesized *$g^{wh}d^h$ < *d^hg^{wh} in Hittite is perfectly acceptable.

4.2 Derivational chain

The derivational process begins with the formation of an adjectival *-ro-* stem with full grade of the root: *$d^h\acute{e}g^{wh}$-ro- 'burning, burnt', as indirectly reflected by the *eh_2-collective noun Gk. τέφρα 'ashes' < *$d^h\acute{e}g^{wh}$-reh_2. The next step was that of building an acrostatic *i*-abstract to the *o*-adjective (cf. for this type Schindler 1980:390): *$d^h\acute{e}g^{wh}$-ro- 'burning, burnt' → *$d^h\acute{o}g^{wh}$-ri-/*$d^h\acute{e}g^{wh}$-ri- '(abstr.) burning', the latter being continued by Lat. *febris* 'fever'.[2] Finally, a prepositional possessive compound (of the type ἔνθεος 'having the god inside') was built based on *$d^h\acute{e}g^{wh}$-ri-, which is prefixed by the zero-grade of the local particle ****en*** 'in' and reduced to its zero-grade *d^hg^{wh}-ri-: *$\c{n}$-d^hg^{wh}-ri- 'having the burning inside', i.e. (*subst.*) 'cremation site'.[3] Under the assumption that the syllable boundary was influenced by the morpheme boundary in the compound (cf. NHG *ver-eisen* [fɐ.ˈʔaɪzn̩] instead of **[fɐ.ˈʁaɪzn̩]), the metathesis *$\c{n}$-$d^hg^{wh}ri$- > *$\c{n}g^{wh}d^hri$- is regular.

[2] The alternative connection with the root *g^wd^her- (but *$g^w\hat{g}^her$- LIV^2 191) seen in Gk. φθείρω 'destroy', Skt. ***kṣar-*** 'flow' (Olav Hackstein, pers. comm.) suffers from the fact that the semantics of a root meaning 'flow' (Jamison 1993) do not lend themselves to an etymology for a word for 'cremation site'. In addition, the derivational relationship with Gk. τέφρα 'ashes' and Lat. *febris* 'fever' (see above) would be lost.

[3] The final derivational step was first suggested to me by Paul Widmer and Alan Nussbaum, and then buttressed by further evidence for the type in the discussion after the presentation at ECIEC 32 in Poznań. I am grateful to Georges-Jean Pinault and Martin Kümmel for their contributions to the solution.

The reduction of _*en_ as first member of a compound is exactly paralleled by Hitt. _antuwaḫḫaš/antuḫša-_ 'man, human being, person' < _*n̥-dʰu̯éh$_2$-ōs/*n̥-dʰuh$_2$-s-_ (+ _-o-_) 'having the breath inside'. Eichner (1979:77) was the first one to recognize the inherited structure of the word, but reconstructed a full grade _*en_ (followed by Rieken 1999:190–1). This was called into question by Kloekhorst (_EDHIL_ 188–9) without reasons given. However, the comparison with Hitt. _in(n)arā-_ 'strong' < _*en-h$_2$nor-ó-_ 'having virility inside', with the loss of _*h$_2$_ through the Saussure effect and the regular development of _*e_ > _i_ in pretonic position (_AHP_ 50, 139; differently _EDHIL_ 386–7), shows unequivocally that a full-grade _*en_ for _an-_ in _antuwaḫḫaš_ is out of the question. Therefore, the preform _*n̥-dʰu̯éh$_2$-ōs/*n̥-dʰuh$_2$-s-_ 'having breath inside' offers a perfect parallel to _*n̥-gʷʰdʰ-ri-_ 'having the burning inside' within Hittite.[4]

Outside Anatolian, Gk. ἄ-καρος 'brain' < _*n̥-k̂r̥h$_2$-o-_ '(found) in the head' has a comparable morphological structure, showing a zero-grade form in both the first and second members of the compound (cf. Nussbaum 1986:72–3 and, in general, Lindner 2011:42–4, with references on the ablaut reduction of compound members). Another very reasonable example of zero-grade _*n̥-_ in Greek, kindly suggested to me by Alan Nussbaum (p.c.), is Homeric ἄ-ξυλος ὕλη 'a forest/copse (ὕλη) with (lots of) wood (ξύλα) in it, a well-wooded copse'. This analysis of a compound like ἄ-ξυλος avoids the difficulties posed by the two competing analyses. The first is that of the suspiciously regular psilosis if one explains such an "alpha epitatikon" as coming from _*sm̥-_. The second is the need to assume the implausible meaning 'with no timber cut from it' if one supposes ἄ-ξυλος to have been a privative compound (e.g. _LSJ_ 172, following a Homeric scholiast).

Tocharian B _e(N)-_, _o(N)-_, A _a(N)-_, _ā(N)-_, _o(N)-_ (< Common Toch. _*æN-_) 'in, at, on' is found in adverbial expressions that, according to Hilmarsson (1991, especially pp. 9–12), go back to Tocharian univerbations of the preposition _*n̥_ with nouns. The origin of zero-grade _*n̥_ 'in, at, on' is probably to be sought in inherited compounds, from which it spread to the functional domain (as preposition or preverb) of the local particle _*en_ with full grade. Also Lithuanian _į(-)_ < _*n̥(-)_ (cf. _IEW_ 312, Fraenkel 1955:181), being used both as the regular preposition and as a first member of compounds, may be assumed to have its origin in compositional reduction.

Therefore, if compounds with a zero-grade allomorph _*n̥-_ as their first member can be reconstructed for Proto-Indo-European both for structural reasons and on the basis of reflexes in several daughter languages, the following derivational chain can safely be assumed:

> _*dʰégʷʰ-ro-_ 'burning, burnt'
> → _*dʰógʷʰ-ri-/*dʰégʷʰ-ri-_ 'burning'
> → _*n̥-gʷʰdʰ-ri-_ 'having the burning inside' (with metathesis)

[4] Theoretically, a reconstruction _*n̥-gʷʰdʰ-ri-o-_ is also possible, since the stem form _uktūriya-_ cannot be excluded (see §2.3).

4.3 Further phonological development

The inherited word _*n̥-gʷʰdʰ-ri-_ 'having the burning inside' underwent various phonological changes that made its structure opaque. The first is the regular loss of aspiration (_AHP_ 60): _*n̥gʷʰdʰri-_ > _*n̥gʷdri-_. Secondly, two epenthetic vowels evolved: one before the syllabic nasal and the other between _d_ and _r_. The first resulted from regular sound change, while the second was a consequence of a shift in the syllable boundary: once the word was lexicalized and no longer recognized as a compound with the negation prefix, the syllable boundary moved between the two plosives (_*n̥gʷ.dri-_). Then, unsurprisingly, an epenthetic vowel arose in the syllable-initial cluster .TR-: _*n̥gʷ.dri-_ > _*əngʷ.dəri-_. This is perfectly matched by the epenthetic vowel seen in the word-initial clusters of _teri-_ '3' < _*tri-_ (_IEW_ 1090) and in _teripp(iya)-_ 'to plow (with animals?)', [A.ŠA]_terippi-_ 'plowed field' < _*trep-_ 'to turn' (_LIV²_ 591) or _*drep-_ 'to plow, dig' (_LIV²_ 111), which subsequently seems to have attracted the accent, since it was not raised to _i_ (cf. Kassian and Yakubovich 2002:13f. and Melchert 2013 for the whole process).

In _*əngʷdəri-_, however, both epenthetic vowels underwent rounding immediately, as one would expect in a labialized environment. That the labialization of _gʷ_ would have spread as a secondary articulation to the surrounding consonants is a phonetic null hypothesis, as has been stated by Laver (1994:321):

> Labialization is found as a secondary articulation in virtually every language of the world. Labial action of this sort seems less focused in the stream of speech than some other articulatory features, and spreads easily from its major segmental origin to neighbouring segments, particularly in an anticipatory direction [citation omitted, ER].

The spread of labialization to a neighboring vowel, especially to [ə], which does not have any distinct features, is also a well-known and frequent process (for instance in Latin weak vowels, cf. Weiss 2009:118). Accordingly, it is easy to imagine that _*əngʷdəri-_ was phonetically realized as [əŋʷgʷdʷəri-] and developed to _*uŋʷgʷdʷuri-_. This is corroborated by other well-established examples in Hittite, e.g. _*kʷət.ru-_ > _kutru-_ in _kutruen-_ 'the fourth one, i.e. witness' and _*kʷl̥s-énti_ > _*kʷəls-énti_ > _gulšanzi_ 'they write' (cf. _AHP_ 175, Kimball 1999:199, Kassian and Yakubovich 2002; _EDHIL_ 61). At a very late stage, after the attraction of the accent, the second _u_ in _*uŋʷgʷdʷuri-_ was lowered to _o_ before _r_ (cf. Rieken 2005, _EDHIL_ 35–60). This is regularly spelled with ⟨U⟩, as in the examples of ⟨uk-tu-u-ri-⟩ presented above in §2.3.

Finally, a nasal is dropped in Hittite before a cluster of two consonants. This sound law, recently investigated and confirmed by Shatskov (2006), is also responsible for the allomorphy of the Hittite nasal infix _-nin-/-ni-_, where _-nin-_ is used before endings beginning with vowel (3 pl. pres. _/šarninkanzi/_ ⟨šar-ni-in-kán-zi⟩) while _-ni-_ occurs before endings beginning with consonant (3 sg. pres. _/šarnikzi/_ ⟨šar-ni-ik-zi⟩). In the

case of *uŋ^{w}g^{w}d^{w}ori-, ŋ^{w} was lost, giving rise to *ug^{w}d^{w}ori- ⟨uk-tu-u-ri-⟩,[5] the form attested in the texts.

The phonological developments can accordingly be summarized as follows:

  *n̥d^{h}g^{wh}ri-
> *n̥g^{wh}d^{h}ri-
> *n̥g^{w}dri-
> *əng^{w}.dəri- [əŋ^{w}g^{w}d^{w}əri-]
> *uŋ^{w}g^{w}d^{w}úri-
> *uŋ^{w}g^{w}d^{w}óri-
> *ug^{w}d^{w}óri- ⟨uk-tu-u-ri-⟩

5 New proposal for *uktūri* 'forever' and *uktūri-* 'imperishable'

In spite of the difference in meaning, the root we propose to begin with is again *d^{h}eg^{wh}- 'burn' (*LIV*[2] 115f.), and once more the primary verbal adjective in *-ro-*, *d^{h}ég^{wh}-ro- 'burning, burnt', can be regarded as the first step of the derivational process. From *d^{h}ég^{wh}-ro- was built a privative compound *n̥-g^{wh}d^{h}-ro- 'not burning, not burnt', with introduction of a zero-grade root and the subsequent metathesis (see above, §4.2). This in turn was the basis for an *i*-abstract *n̥-g^{wh}d^{h}-r-i- 'non-burning' (for the type, cf. again Schindler 1980:390). Its instrumental case form *n̥-g^{wh}d^{h}-r-i-h_1 'with no burning; without burning' developed into an adverb. *n̥-g^{wh}d^{h}-r-i-h_1 'without burning' is directly reflected in the adverb ***uktūri*** 'forever', having developed by the same sound changes already described for *n̥-g^{wh}d^{h}-ri- 'cremation site' in §4.3. The semantic change from 'without burning' → 'without perishing', i.e. 'forever', is trivial and paralleled by the well-known adjective Ved. *á-kṣi-ta-*, Gk. ἄ-φθι-τον 'without burning' → 'without perishing, imperishable'.[6]

The adjective ***uktūri-*** 'imperishable' can now be easily interpreted as a hypostasis based on the adverb without further derivational suffix. This would also explain the lack of ablaut in the *-i-* suffix. The same process also applied to non-ablauting adjectival ***nakkī-*** 'weighty, important', which goes back to the adverb ***nakkī*** 'importantly' < ***nok̂-i-h_1*** 'with weight, with importance', as demonstrated by Widmer (2005[2007]: 200–2). The difference between ***uktūri*** and ***nakkī*** in accent and vowel lengthening displayed by the plene written vowels originates in the attraction of the accent by the epenthetic vowel in ***uktūri*** (see §4.3).

A summary of the development goes as follows:

[5] For the spelling with the UK-sign cf. ⟨tar-uk-zi⟩ and ⟨ta-ru-u[k-zi]⟩ beside ⟨tar-ku-zi⟩ for /tark^{w}tsi/ (cf. *EDHIL* 842) and frequent ⟨^{LÚ}tu-uḫ-kán-ti-iš⟩ beside rare ⟨^{LÚ}tu-u-ḫu-kán-ti-iš⟩ for /tuḫ^{w}k-/.

[6] Martin Kümmel kindly mentions to me another example of the same semantic development, Iran. ***an-auša-*** 'not burning' (*$h_1$eu̯s- 'burn') > Av. ***anaoša-*** 'imperishable'.

  *d^{h}ég^{wh}-ro- 'burning, burnt'
→ *n̥-g^{wh}d^{h}-ro- 'not burning, not burnt' (with metathesis)
→ *n̥-g^{wh}d^{h}-r-i- 'non-burning'
→ *n̥-g^{wh}d^{h}-r-i-h_1 'without burning'
> ***uktūri*** 'forever'
→ ***uktūri-*** 'imperishable'

6 Summary and conclusion

In the preceding sections, etymologies for three homophonous Hittite words have been suggested:

uktūri- subst. 'cremation site' < *n̥-g^{wh}d^{h}-ri- 'having the burning inside'
uktūri adv. 'forever' < *n̥-g^{wh}d^{h}-r-i-h_1 'without burning'
uktūri- adj. 'imperishable', hypostasis to ***uktūri*** adv. 'forever'

All are based on a metathesized zero-grade of the root *d^{h}eg^{wh}- 'burn'. The reconstruction, if accepted, provides new evidence for the "thorny problem" (cf. Schindler 1977), since they make it probable that the PIE metathesis *d^{h}g^{wh} > *g^{wh}d^{h} took place before Anatolian branched off.

Abbreviations

AHP = Melchert, H. Craig. 1994. *Anatolian Historical Phonology.* Amsterdam: Rodopi.

EDHIL = Kloekhorst, Alwin. 2008. *Etymological Dictionary of the Hittite Inherited Lexicon.* Leiden: Brill.

HEG = Tischler, Johann. 1977– . *Hethitisches etymologisches Glossar.* Innsbruck: Institut für Sprachwissenschaft der Universität Innsbruck.

IEW = Pokorny, Julius. 1959. *Indogermanisches etymologisches Wörterbuch.* Vol. 1. Bern: Francke.

LIV[2] = Kümmel, Martin and Helmut Rix, eds. 2001. *Lexikon der indogermanischen Verben: Die Wurzeln und ihre Primärstammbildungen.* 2nd ed. Wiesbaden: Reichert.

LSJ = Liddell, Henry G. and Robert Scott. 1940. *A Greek-English Lexicon.* Revised and augmented throughout by Henry S. Jones. Oxford: Clarendon.

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Phonological Rules and Dialect Geography in Ancient Greek

DON RINGE

The unique combination of imagination and rigor that characterizes Professor Jamison's work has been an inspiration to many scholars. I venture to offer this somewhat speculative paper as a small token of appreciation.[1]

In Ringe and Eska 2013:115–8 I proposed a solution to a problem noted in Lejeune 1972:77–8 and Sommerstein 1973:21–3, as follows. The treatment of noncoronal stops before nasals in Attic Greek is not entirely uniform. On the one hand, all bilabials become [m] before /m/, and there are no surface exceptions even in isolated words, e.g.:

> *λελειμμένος* 'left behind', *βλέμμα* 'glance' (/p + m/)
> *κεκαλυμμένος* 'covered', *τρῖμμός* 'beaten path' (/b + m/)
> *γεγραμμένος* 'written', *ἄλειμμα* 'ointment' (/p^h + m/)
> *ἄμμος* 'sand' (synchronically underived; cf. Lat. ***sabulum*** 'coarse sand')

Voiced stops also become nasals before both underlying nasals, and again there are no surface exceptions (see above for /b + m/, which meets the conditions for both rules):

> *τεταγμένος* 'arranged', where *γμ* = [ŋm] (/g + m/)[2]
> *διάλλαγμα* [ŋm] 'changeling' (/g + m/)
> *σεμνός* 'reverend, holy' (/b + n/)
> *ἁγνός* [ŋn] 'holy' (/g + n/)
> *ἀμνός* 'lamb' (< ****abnos***, synchronically underived; cf. Lat. ***agnus*** < ****h_2eg^wnós***)

On the other hand, voiceless stops, aspirated or not, remain unchanged before /n/:

[1] I am grateful to Michael Weiss for comments on an earlier draft of this paper.

[2] Sturtevant 1940:64–5, Allen 1987:35–9.

> *τέκνον* 'child'
> *τερπνός* 'pleasant'
> *σπερχνός* 'hasty'
> *στρυφνός* 'astringent'

But the voiceless and voiceless aspirated velar stops exhibit a double development before /m/ (only). In derived environments, both in inflection and in derivation, they undergo nasal assimilation to *γ* [ŋ]:

> *δεδειγμένος* 'shown' (/k + m/)
> *δέδεγμαι* 'I have received' (/k^h + m/)
> *δόγμα* 'opinion, (legislative) decree' (/k + m/)
> *ταραγμός* 'confusion, turmoil' (/k^h + m/)

In underived words and fossilized derivatives, however, the stops undergo no change:

> *ἀκμή* '(highest) point'
> *ἄκμων* 'anvil'
> *λικμᾶν* 'to winnow (grain)'
> *δοχμή* 'span, handsbreadth'
> *αἰχμή* 'spear-point'
> *λιχμᾶν* 'to flick the tongue' (said of snakes)

In one or two cases the stop before /m/ is the result of a late sound change; for instance, *αἰχμή* reflects ****aiksmā́*** (cf. Myc. acc. pl. ***ai-ka-sa-ma***). But in others words the stop plus /m/ sequence is inherited; note especially that *ἄκμων* must be inherited from Proto-Indo-European with no change in its stop (cf. Ved. ***áśmā***, Lith. ***akmuõ***, both 'stone'). Thus surface-based paradigmatic leveling from regular sound-change outcomes, which can explain the replacement of coronal stop plus /m/ by *σμ* in the same morphological environments (Garrett and Blevins 2009:529–32), is not an available explanation in this case.[3]

The neat distribution of outcomes of underlying /km/ and /k^hm/ cannot be explained on the assumption that the nasal assimilation of voiceless velar stops to following /m/ was a regular sound change—not even if the sound change was arrested before going to completion, since in that case there should be at least a few exceptions to the pattern. However, application only in derived environments is a known behavior of phonological rules. We are forced to conclude that the nasal assimilation of /km/ and /k^hm/ resulted from the modification of an existing phonological rule, and the only suitable rule is the rule nasalizing ***bilabial*** stops before /m/ (which ***was*** the result of a regular sound change).

These changes had a major impact on the inflection of the mediopassive perfect

[3] I am grateful to Dieter Gunkel for the reference.

and pluperfect. Since the voicing and aspiration of stops were already neutralized before the 2nd singular endings beginning with *-σ-*, the 3rd singular endings beginning with *-τ-*, and the numerous endings beginning with *-σθ-*, neutralization before the *-μ-* of the first-person endings and the participial suffix rendered the inflection of stems in bilabial stops uniform and the inflection of stems in velar stops likewise uniform, except for the 3rd plural forms ending in (perfect) *-αται*, (pluperfect) *-ατο*. But a different change rendered those forms uniform as well: throughout the Attic-Ionic dialect group, stem-final *-π-* and *-β-* were replaced by *-φ-*, and stem-final *-κ-* and *-γ-* were replaced by *-χ-*, in the 3rd plural. Attested Attic examples are fairly few, but since exactly the same development occurred in Ionic, the number of quotable forms is substantial, e.g.:

> *τετράφαται* 'they are inclined' Thgn. 42 (stem in /-p-/)
> *εἰλίχατο* 'they were wrapped' Hdt. 7.90 (stem in /-k-/)[4]
> *τετρῖφαται* 'they exhibit bruises' Hdt. 2.93.3 (stem in /-b-/)
> *ἀντιτετάχαται* 'they are deployed against' X. *An.* 4.8.5 (stem in /-g-/)
> *ἀν]αγεγράφαται* 'they are enrolled' *IG* 1.34.59 (Attic, stem in /-p^h-/)
> *τετεύχαται* 'they have been made' *Il.* 13.22 (stem in /-k^h-/)

Of course rendering the inflection of mediopassive perfects uniform cannot have been the *purpose* of these changes; grammatical changes begin as learner errors, and learners are not motivated to make errors. But whichever of the two changes occurred first decreased the amount of information about underlying forms available to native learners and thus made the other change more likely. Naturally we would like to know which change occurred first; but since the two changes do not interact directly, our only evidence is distributional, as follows.

Unlike the aspiration of root-final stops before 3rd plural endings, the rules nasalizing noncoronal stops before /m/ are not uniform in the Attic-Ionic dialect area. A late 6th-century inscription from Miletos exhibits no assimilation of aspirated stops before /m/:

> *διφάσια [μ]ε̄λίχματα ⁝ δύο γυλλοὶ ἐστεθμ|ένοι ⁝* *DGE* 725.2–3 (= Schwyzer 1923:352)
> "two-fold propitiations; two blocks [cult statues?] garlanded"

Especially striking is the fact that, though the first bilabial of **estep^{h}ménos* has undergone dissimilation in place of articulation, its aspiration remains untouched. Our text of Homer preserves at least one productively derived noun with the same retention

[4] Herodotus provides the only attested exceptions, namely *ἀπῖκαται* 'they have come', plup. *ἀπῖκατο*. They are certainly innovations; Wackernagel (1916:24 n. 1) suggests **ap^{h}ík^{h}ato* (the expected form) > **ap^{h}íkato* by a kind of progresssive Grassmann's Law, followed by adjustment of the shape of the preverb (conceivably by some ancient editor).

of the voiceless aspirate before /m/, namely *ἔχματα* 'stays, props' (*ἔχειν* 'hold'). A 5th-century inscription from Chios presents us with a more surprising form:

> *καὶ τὸ π|ρῆχμα προσκ|ηρυσσόντων | ὅτι ἂμ μέλλη|ι πρήξεσθαι|* *DGE* 688.B.16–20 (= Schwyzer 1923:338)
> "And let them give notice in addition of the penalty which is going to be exacted."[5]

Here the voiced velar stop of *πρᾱγ-* 'make, do, accomplish, carry out' has apparently been replaced by the corresponding aspirate. The same form is attested at Ephesos (Bechtel 1924:123) and probably occurred in the original text of Herodotus, since two ancient quotations preserve it (Schulze 1926:217–20), though it has been eliminated from our text by Atticization. The usual explanation is that this is actually a noun in **-smen-* rather than the usual **-men-* (Bechtel 1924:123–4, Frisk 1960–72 s.v. *πράσσω*), but that is in fact very unlikely; the word is common throughout the Greek world from the 5th century onwards, and the suffix is otherwise just **-men-*. Nor is **-ksm-* a plausible source for the consonant cluster in the Homeric participle *ἀκαχμένος* 'sharpened; pointed, tipped'; participles do not end in "**-sméno-*," and a stem **akaks-* would be a morphological monstrosity.[6] It seems clear that East Ionic originally had an alternative phonological rule, of unclear origin, but not reflecting a regular sound change, that replaced voiceless and voiced velar stops by the corresponding aspirate before /m/. Later East Ionic inscriptions show the Attic rule instead; that is almost certainly the result of Attic influence,[7] and it is possible that the nasalizing rule spread through the Attic-Ionic dialect continuum in the way familiar from modern sociolinguistic work.

But the East Ionic rule is part of a larger pattern. Lesbian, which shares an innovation or two with the Ionic of Chios, its neighbor to the south, aspirates velar stops not only before /m/ but also before /n/. There are several examples from the poetry of Sappho and Alcaeus,[8] e.g.:

> *ἄχματ'* 'cargo' Alc. 208(a).14 (/g + m/)
> *ὀμμεμείχμενον* 'mingled' Sapph. 2.15 (/g + m/)

[5] This seems to fit the context better than 'the case which is going to be prosecuted' (so Buck 1955:189); the preceding clauses say that the heralds are to announce the indictment by the Fifteen and the day of the trial.

[6] The adjective *ὀξύς* is too problematic to justify positing a pre-Greek root **aks-*, both because *u*-stem adjectives with *o*-grade roots are not normal and because there is no other clear evidence for a "root extension" **-s-* of **h₂eḱ-* 'sharp' in Greek or any other language. For an alternative etymology see Beekes 2010 s.v. with references.

[7] As is well known, our texts of Homer and Herodotus have also been extensively Atticized, making reconstruction of the original situation in many details, including this one, infeasible except in the most general terms.

[8] Sappho and Alcaeus are cited with the numbering of Voigt 1971. Not surprisingly, there are also some forms with *-γμ-*; they can reflect Atticization of the text, since no copy of any fragment predates the Alexandrian grammarians.

προδεδείχμενον 'foreshown'[9] Alc. 75.4 (/k + m/)
τετυχμέναις 'created' Alc. 343 (/k^h + m/)
δείχνυντε['showing' Alc. 73.13 (/k + n/)
ὀνεμείχνυτο 'were mingled' Sapph. 44.30

Contrast Chian Ionic *ἀποδεκνύντες* 'specifying' *DGE* 688.B.13–4 = Schwyzer 1923:338. As in Attic-Ionic, underived examples do not undergo the rule: cf. *ὄκνος* 'fear' Alc. 6.9, *πύκνα* 'rapidly, with high frequency' Sapph. 1.11, *ἄγνᾱ* 'holy' Sapph. 17.13. Moreover, like archaic East Ionic, Lesbian also lacks the rule nasalizing bilabials before /m/, to judge from dat. pl. *ὀππάτεσσι* 'eyes' Sapph. 31.11 (**op-mat-*, Hamm 1958:21).

What conclusions can be drawn from this pattern of facts? Most obviously, the dialects of the Asia Minor seaboard which lack the rule nasalizing velars before /m/ also lack the rule nasalizing bilabials before /m/; that is consistent with the hypothesis that the former resulted from generalization of the latter in Attic. We might also venture the suggestion that the rule aspirating velar stops before /m/ is an archaism, since the dialects of Asia Minor seem to preserve an archaism in imperative 3pl. *-ντον* in a similar, though admittedly not identical, geographical pattern (Ringe 1997); the Lesbian extension of the rule to position before /n/ would presumably be an innovation. In addition, it would be reasonable to posit some sort of historical relationship between the rule aspirating velars before /m/ and the rule aspirating bilabials and velars before 3rd plural endings, since both rules operated pre-eminently in the mediopassive perfect;[10] unfortunately the details of that relationship remain obscure for lack of further evidence.

It would therefore be possible to construct a historical scenario like the following:

1a) generalization of root-final aspirates before 3pl. endings throughout Attic-Ionic;
1b) replacement of velars, and possibly also bilabials, with the corresponding aspirates before /m/ in productive categories, also throughout Attic-Ionic, (1a) and (1b) being historically connected in some fashion or other;
2) bilabials > *m* before /m/ in Attic (regular sound change, subsequent to both parts of (1));
3) generalization of the rule resulting from (2) to velars in Attic;
4) spread of Attic rules (2) and (3) throughout Attic-Ionic.

However, inferences from the distribution of changes are not watertight; there are too many known examples of changes spreading across well-established dialect boundaries. Two relevant examples are the appearance as ττ not only in Attic and West

[9] Campbell's translation (1982:75).

[10] And in the athematic present, to the extent that examples survived: cf. Hom. *δέχαται* 'they await, they receive'. Such 3pl. forms must also be the ultimate source of the unetymological *-χ-* of Att. *δέχεσθαι*.

Ionic, but also in Boeotian, of the palatalization product which appears as *σσ* in most other dialects, and the application of the "third compensatory lengthening" in East Ionic and the eastern Doric dialects, but not in other Ionic or Doric dialects. In both cases one or more changes must have spread across dialect boundaries, *regardless of the order in which the changes occurred*.

We must therefore reckon with the possibility of an alternative scenario:

1a) bilabials > *m* before /m/ in Attic (regular sound change);
1b) replacement of velars, and possibly also bilabials, with the corresponding aspirates before /m/ in productive categories in East Ionic (but not in Attic);
1c) generalization of root-final aspirates before 3pl. endings, possibly related to (1b), and if so, beginning in East Ionic and spreading throughout the Attic-Ionic area;
2) generalization of the rule resulting from (1a) to velars in Attic;
3) spread of Attic rules (1a) and (2) throughout Attic-Ionic.

In this scenario the chronological relations among (1a) through (1c) are not certainly recoverable.

Is there any reason to prefer one scenario to the other? There might be, but unfortunately the evidence is negative. If the first scenario were correct, all instances of bilabial + /m/ in Attic would necessarily have become *μμ* by regular sound change, but not all instances of velar + /m/ in productive categories need have become *γμ* [ŋm], since that was not a regular sound change; we might expect to find at least an occasional relic with *χμ* by the older rule. I do not know of any. But that argument is considerably weakened by several considerations: (1) the new rule was fully productive, so it might have eliminated all older outcomes in any case; (2) it is not always obvious which derivatives are fossilized; and (3) for derivatives we must reckon with the possibility of suffixes beginning with **-sm-* in at least some cases. An example that illustrates the difficulties outlined in (2) and (3) is Att. *δραχμή* 'drachma' (vs. *δράγμα* 'handful'—and note further that it is difficult to determine which velar stop this root originally ended in).

In sum, we must be satisfied with the more limited conclusion that the rule nasalizing bilabials before /m/ was extended to apply also to velars, and that both rules were originally alien to the Ionic and Aeolic dialects of the Asia Minor seaboard.

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A Tough-talking Nun and Women's Language in a Buddhist Monastic Code

GREGORY SCHOPEN

One of the many topics in the study of women in early India that Stephanie Jamison has opened up for discussion is the question of women's language. She has suggested that "the Rig-vedic poets use certain linguistic features as a short-hand means to characterize the speaker as a woman" and identified the secondary *-ka*-suffix and the perfect optative as likely suspects for such markers. She has done so not because either of these features "is at all exclusive to 'women's language'" but because both show "unusual clustering" in contexts involving women speaking. Such speech, moreover, can be—as Stephanie puts it in an interesting double adverbial construction—"fairly spectacularly vulgar." Women's speech in the *Veda* can sometimes be "indeed quite bold woman's speech" (Jamison 2008:152, 157, 158; see also Jamison 2009:322–8).

Given all of this, it seemed only fitting here to explore an issue of women's language in a very different body of Indian material that I know a little more about. My discussion in fact will have to be limited to a single canonical Buddhist Monastic Code originally written or compiled in Sanskrit, in North India, in the early centuries of the Common Era. This Code is called the *Mūlasarvāstivāda-vinaya* and—to judge by its Tibetan translation—must have been enormous, almost 8,000 pages long. Much of it has not been preserved in Sanskrit, so there will have to be a good deal of shifting back and forth between Sanskrit and Tibetan, but the Tibetan translation is a notoriously good one. The discussion will also have to be limited largely to a single term. It too shows an "unusual clustering," and while perhaps not "fairly spectacularly" so, it as well appears to have been vulgar, or at least abusive.

The Sanskrit term in question is an odd compound: *putramoṭikāputra*. Although he appears to have known very few occurrences of the term, Edgerton (1953:347) does register it, defining it as "bastard (as term of abuse)," and he says, "no doubt *moṭikā* means basket or the like" and the literal meaning is "child-basket child, i.e. foundling." He also points out, however, that *muṭa*, *moṭaka*, etc. seem first to refer to "a large measure of grain."

Although a recent note by Karashima (2007:86–8) does not go much beyond Edgerton, that the compound does mean 'bastard'—in virtually all our senses of the term—does seem to be supported by a number of factors. Edgerton cites *nal phrug* as a

Tibetan translation of *putramoṭikāputra*, and even in modern Tibetan *nal phrug* refers to "the offspring of a sexually inappropriate relationship, illegitimate child" (Goldstein 2001:613). Indeed, for much earlier periods *nal phrug* is an attested translation of Skt. *jārajāta* ('bastard, child by a paramour'), *bandhula* ('bastard'), and *pārastraiṇeya* ('a son by another's wife') (Negi 1993–2005:2850), and these are only the attestations found in the standard Tibetan–Sanskrit dictionaries. In the *Mūlasarvāstivāda-vinaya* itself, in the section called the *Cīvaravastu*, *nal phrug* translates both *putramoṭikāputra*, as Edgerton noted, and also *vātaputra*, which he noted only under that term. *Vātaputra*, literally 'son of the wind', usually means 'rogue' or 'swindler', but Edgerton, presumably on the basis of the Tibetan, takes it too as a word for 'bastard'.

Edgerton does not cite a Tibetan equivalent for the second of the two occurrences of *putramoṭikāputra* that he lists, but even though it is not perfectly straightforward, it seems virtually certain that *putramoṭikāputra* here is not translated by *nal phrug* but by the collocation *bu zan mo'i bu*.[1] *bu zan mo'i bu*, however, is at first sight also problematic in several ways. This collocation is not recorded in any of our standard dictionaries, and even what appears to be its main component—*bu zan mo*—seems to be recorded only in the modern *Bod rgya tshig mdzod chen mo*. There *bu zan mo* is listed as "old" or "ancient" and said to be the same as *mkha' 'gro ma* and *srin mo* (Zhang Yisun 1985:1831). The first of these is an attested translation of *ḍākinī* ("a female imp... feeding on human flesh"), the second of *rākṣasī* (an evil female demon), so *bu zan mo* would denote a female demon, and the seeming etymological meaning of *bu zan mo* would appear to support this: the Tibetan *qua* Tibetan would seem to mean 'a female eater of children', and this would conform to the eating habits of any number of Indian female demons. A *bu zan mo'i bu* would be then 'a child (son) of an eater of children (sons)'—"a son of a witch," if you will.

The problem here is that although to call someone "a son of a witch" was almost certainly not a compliment, still that did not mean he was a 'bastard', which is what all our parallel terms—*jārajāta*, *bandhula*, etc.—point to. Moreover, although there are any number of Sanskrit expressions for 'son of a whore' or 'son of a slave girl' used as terms of abuse, 'son of *ḍākinī*' or 'son of *rākṣasī*' do not seem to occur. The solution here—if it can be called such—would be to see that *bu zan mo'i bu* is not so much a translation of *putramoṭikāputra* as a calque of it, and the fact that the resultant form makes good Tibetan cultural sense is simply a happy linguistic accident. Notice that the Tibetan collocation reproduces exactly the odd structure of the San-

[1]The Sanskrit is found now at *Divyāvadana* 493.20 (Cowell and Neil 1886), the Tibetan at *Bhikṣuvibhaṅga* Ja 696.2. There is not a word-for-word correspondence between the Sanskrit and Tibetan here, but *putramoṭikāputra* is the only term in the Sanskrit passage that Tibetan *bu zan mo'i bu* could possibly be translating. Karashima (2007:87 n. 31) shows no hesitation about saying "the word *putramoṭikāputra* is rendered [here] as *bu zan mo'i bu*." —Note that all references to Tibetan sources will be to the *'dul ba* section of the Derge print reproduced in Barber 1991 and will give the volume letter of that section, folio, and line numbers. I must here thank Dr. Ryoji Kishino, and his "buddy" the computer, for help with some of the Tibetan references.

skrit: both begin and end with the word son (*putra* = *bu*). In both the middle term is an obscure word connected with grain or what is eaten that probably developed in the direction of 'measure, basket'. Approached from this angle, given the exact structural parallel between the Tibetan *bu zan mo'i bu* and the Sanskrit *putramoṭikāputra* and the patterned repetition of the term 'son', it is hard to imagine that the former could be translating anything else but the latter. It could certainly not be translating any of the other expressions that *nal phrug* does: *jārajāta*, *bandhula*, *vātaputra*. This consideration at least has determined here the sample to be used.

Tibetan *nal phrug* at least once certainly translates Skt. *putramoṭikāputra*, but it also far more commonly seems to translate *vātaputra* and a number of other terms, so in the absence of a Sanskrit text it would be impossible to determine with any certainty what *nal phrug* was translating in any given instance.[2] But if—as seems highly likely—the second attested Tibetan translation, *bu zan mo'i bu*, could only be translating *putramoṭikāputra*, then whenever this Tibetan collocation occurred, one could be far more certain that the original text it was translating had *putramoṭikāputra*, and not anything else. This will be the working hypothesis in what follows, but it is also important to note that even if this hypothesis turns out to be unsustainable, it is virtually certain that Tibetan *bu zan mo'i bu* is translating a Sanskrit term of abuse that meant 'bastard', or something like 'son of a bitch'. The significance of this for us is, as we will see, that in our Monastic Code *bu zan mo'i bu* is a term used almost exclusively by women.

Edgerton cites only two occurrences of Skt. *putramoṭikāputra*, and both of them occur in our Monastic Code, the first in its *Cīvaravastu*, the second in its *Bhikṣuvibhaṅga*. In both, moreover, it is a woman who uses the term. In the first the woman is a servant or slave (*preṣyadārikā*) who is sent by her mistress to a Buddhist monastery to invite the monks to lunch. When she gets there, she sees the monks bathing naked and assumes therefore, but wrongly, that they are not Buddhists but Ājīvikas, members of a competing religious group who practice nudity. She thinks to herself: "Surely the Noble Ones have left and this monastery has been seized by those (shameless) bastards (*putramoṭikāputra*), the Ājīvikas." She then says exactly this to her mistress, the refined Lady Viśākhā, who repeats it to the Buddha—our term then actually occurs here three times, always in the words of a woman (Dutt 1942:83–6).

The second of Edgerton's occurrences, the one from the *Bhikṣuvibhaṅga*, is preserved in Sanskrit in a crudely excerpted version in the *Divyāvadāna*. Here the term is used in regard to a monk by the Group-of-Twelve Nuns, a group of nuns who—like their male counterparts, the Group-of-Six Monks—consistently cause trouble, are

[2]In fact it could almost certainly be shown—but not here—that *nal phrug* and its close variant *nal gyi bu* normally and overwhelmingly are translating *vātaputra*, not *putramoṭikāputra*, and that *vātaputra* / *nal phrug*, *nal gyi bu* overwhelmingly occur in lists—usually of three—of disreputable types, not as a direct term of abuse. A typical example can be seen at *Cīvaravastu* 56.14 (Dutt 1942): *viṭa-vātaputra-dhūrtaka* = *dva dang / nal phrug dang / g-yon can*, Ga 736b.4.

arrogant and aggressive, but are also learned and know the rules, exploiting them to their advantage. When they hear that what they think is a really stupid monk has been assigned to instruct the nuns, they are incensed and say that nuns will be stuck in the cycle of rebirth for a long time—i.e. they are in deep trouble—when some ignorant bastard (*putramoṭikāputra 'lpaśruta*) is able to instruct them (Cowell and Neil 1886:493.20)!

There are no other occurrences of *putramoṭikāputra* in the *Cīvaravastu*, nor, it seems, in the bits and pieces of the *Bhikṣuvibhaṅga* preserved in Sanskrit—even recently Karashima (2007:86–8) cites only Edgerton's occurrences—but there are at least four more occurrences of *bu zan mo'i bu* in the Tibetan translation of that section of our Code, and in the one case where we have a corresponding Sanskrit text it is clear that *bu zan mo'i bu* translates *putramoṭikāputra*. In all these cases a woman is again the speaker. In one instance a nasty stepmother twice refers to her stepson who is a learned Buddhist monk, and whom she blames for her husband's death, as "that bastard who knows the Three Baskets [i.e. the Buddhist canon]" (*bu zan mo'i bu sde snod gsum dang ldan pa de*; Ca 132b.1, 6). In another case it is another slave girl (*preṣyadārikā*) who uses the term, calling her mistress—who has ordered her to find her a man for illicit sex—a bastard (*bu zan mo'i bu mo*—marked as feminine; Nya 64a.6). In a final instance in the *Bhikṣuvibhaṅga* once again it is a woman who uses the term (Nya 167b.1).

Unless I am mistaken, these are the only occurrences of *bu zan mo'i bu* in the *Bhikṣuvibhaṅga*, and there appear to be none in the other *vastu* sections. There are, however, at least two in the *Uttaragrantha* (*Muktaka*). In both these instances—which occur in the same long narrative—the same devout Buddhist layman named Jyotiṣka refers to Pūraṇa, another religious competitor of the Buddhists, as a "bastard" or *bu zan mo'i bu* (Pa 169b.3, 170a.3). These instances are obviously like those in the *Cīvaravastu* where the slave girl calls Ājīvikas *putramoṭikāputras*, and name-calling among opponents has in India—as elsewhere—a distinguished history. The other thing noticeable here is that these are the only instances in which our term is used by a man. In every one of the eight other instances that we have seen so far, *putramoṭikāputra* or *bu zan mo'i bu* is used by a woman. Even this much would seem to establish an unusual clustering, and that clustering becomes even more pronounced when the last two sections of our Code in which *bu zan mo'i bu* occurs are taken into account.

The *Kṣudrakavastu* is a very large section filling two entire volumes in the Tibetan translation. In the first of these there appear to be only two occurrences of our term, both used by the same woman in the same long narrative. They are, however, interesting because it is not quite clear if *bu zan mo'i bu mo*—the term is being applied to a female and again is so marked—is being used here as a term of abuse or if it simply describes the girl's questionable parentage. The term is used both times by King Prasenajit's mother in regard to his second wife. She is described in the account as both a slave (*bran mo* = *dāsī*) and a servant or slave girl (*mngag gzhug byed pa*). The

narrator tells us who her father was, but it is not clear if the queen mother knows this, and it is quite possible that she simply assumed that since the girl was a slave, she would have been a bastard. Needless to say, the queen was not pleased at her son's choice.

The second volume of the *Kṣudrakavastu* is richer still in occurrences. It contains seven, all but one in women's speech, and even the exception may refer to women. All seven, moreover, occur in a subsection of this volume which—although not formally marked as such—is entirely devoted to nuns and runs to almost two hundred pages. The only comparable density of occurrences, interestingly enough, is found in the only other section of our Code devoted to nuns, the *Bhikṣuṇīvibhaṅga*. There too there are seven occurrences, every one in women's speech. What this means, then, is that there are as many occurrences of *bu zan mo'i bu* in the two relatively short sections of our Code devoted to nuns as there are in the rest of it combined. This is a different form of the same kind of clustering already noted: not only do occurrences of this term of abuse everywhere cluster in women's speech, but they also are found far more frequently in those parts of our Code devoted to nuns than anywhere else. And there is, as we will shortly see, one further clustering: almost every one of the fourteen occurrences in the nun's section of the *Kṣudrakavastu* and the *Bhikṣuṇīvibhaṅga* is found in the speech of a single nun. That nun is named Sthūlanandā, or "Fat Nandā," but as we will see, she is not so much an individual as a composite type made up, it seems, of all of a monk's worst nightmares. At the very least "she" is a complex male-authored literary fiction that can be read in a variety of ways, an integral part of which is, it seems, the kind of language that she is made to use.

That Sthūlanandā represents a type and stands for all women and for the problems inherent in allowing them to become members of the Buddhist Order, is all but explicitly stated not once, but four times, in a series of little sketches of encounters between Fat Nandā and the severe and prominent ascetic monk Kāśyapa. In one case, for example, just to irritate him she consistently beats him to a house he wants to beg from so that he gets nothing. In another, when Kāśyapa is crossing a narrow, shaky bridge, Fat Nandā jumps up and down on it and he falls into the water. In yet another, she sees Kāśyapa walking past a cesspool and throws a brick into it, splattering him with effluent. She just as consistently refers to him as a dope or fool or dolt (*glen pa* = *mūḍha*). The notion that women will behave badly is, of course, not particularly Buddhist, and Sthūlanandā's behavior could easily be taken as an illustration of Manu's general pronouncement that behavior unworthy of a civilized person, "malice, and bad conduct" were assigned to women by the creator (. . . *anāryatām drohabhāvaṃ kucaryāṃ ca strībhyo manur akalpayat*; Olivelle 2005:IX.17). Kāśyapa's response—the same in every instance—comes from this same world. He says to her: "Sister, this is not your fault, but the Venerable Ānanda's fault; it is the fault of his having got authorized the entrance of women, who engage in serious faults, into the well-spoken Dharma and Discipline [i.e. the Buddhist Order] . . ." (*sring mo khyod kyis ni ma nyes*

kyis tshe dang ldan pa kun dga' bos nyes te / nyes pa sbom po spyod pa'i bud med dag legs par bshad pa'i chos 'dul ba la rab tu phyung zhing bsnyen par rdzogs nas dge slong ma'i dngos por gnang bar byas pas nyes so; Da 136b.2, 140b.7, 142b.2, 154a.6). As would have been well known, the Venerable Ānanda, who is fingered here as the real culprit, was the monk who overcame the Buddha's resistance and convinced Him to allow women into the Order, but the important point is that in his response Kāśyapa does not react to Sthūlanandā as an individual but as a representative of a type of what—from the male author's point of view—can be expected of women in the religious life. Fat Nandā's fault is simply that she is a woman and behaves like one.

But if Sthūlanandā is a type or stereotype, she is also a complex or multifaceted one. Her behavior may be bad or unworthy of an Ārya, but she is consistently presented as learned, and so are others of her type. Sthūlanandā, for example, is a member and the most prominent of the Group-of-Twelve Nuns whom we have already met. When they call the monk assigned to instruct the nuns "an ignorant bastard," that characterization is coupled with the assertion—an assertion that is never denied—that "the nuns are knowers of the Three Baskets [i.e. all of Buddhist canonical literature], teachers of the Dharma, of skillful and untrammeled eloquence" (*bhikṣunyas tripiṭā dharmakathikā yuktamuktapratibhāṇāḥ*; Cowell and Neil 1886:493.14). This is no small claim—and again never denied—and puts these nuns far ahead of your average monk, who in this Code at least is presented often as knowing very little (see Schopen 2014:47–65). Elsewhere the same assertion is made of Sthūlanandā, and she is more specifically described as knowing the whole of a long *sūtra*, the *Abhiniṣkramaṇa-sūtra*, containing the biography of the Buddha (Ja 227a.1). In still other places Sthūlanandā makes the same claim of herself—and these also are never rejected—and in several of these instances our term of abuse occurs. In one case in the *Bhikṣuṇīvibhaṅga* when other nuns criticized the monastery that Sthūlanandā had built because it apparently had no door and windows and resembled a grain elevator, she says back to them: "You (dumb) bastards—ho! Since I am one who knows the Three Baskets, I know how to build a monastery!" (*bu zan gyi bu mo dag / kye kho bo sde snod gsum pa yin pas gtsug lag khang ci 'dra bar brtsigs par shes so*; Ta 222a.4). Similarly in another passage from the *Bhikṣuṇīvibhaṅga*, one which reveals from another angle Sthūlanandā's thorough knowledge of the tradition, both elements occur. In this passage Fat Nandā reacts to the fact that other nuns publicly praise a number of the most prominent nuns, starting with Mahāprajāpatī, the Buddha's stepmother and essentially the founder of the women's Order, but not her:

> The nuns declared the praises of Mahāprajāpatī in the houses of brahmins and householders, saying: "Mahāprajāpatī, possessed of merit, the mother of the Buddha, was declared by the Blessed One the foremost among the Royal Female Elders.[3] Utpalavarṇā too was declared the foremost of those possessed of supernatural powers. Kṛśagautamī also was declared the foremost of those who preserve the Monastic Code. Dharmadinnā too was declared the foremost of those who explain the *sūtras*."
>
> When Sthūlanandā heard those words she scoffed, saying: "Hah, you (stupid) bastards—when this Mahāprajāpatī is one who is self-initiated and does not even have a preceptor and a teacher, this Utpalavarṇā is a whore, and this Kṛśagautamī is an eater of children, still you declare their praises?!"
>
> The other nuns said: "Was not the Noble One, perhaps, hurt by envy of their praises?"
>
> But Sthūlanandā said: "When I am a renouncer from the Buddha's own clan and one who knows the Three Baskets, how could the declaration of praises of those who are unworthy to be praised not be hurtful to me, when nothing is said of me?!" (Ta 295a.4)

Like her male counterparts, the Group-of-Six Monks, who—however devious their motives—are almost always correct in their assertions, Sthūlanandā here is right on all counts and is presented as exceptionally well-informed in terms of traditional Buddhist hagiography. Mahāprajāpatī according to her traditional biography did lack a preceptor and teacher, and the validity of her ordination and even her status as a nun were therefore technically open to question. Utpalavarṇā was likewise a prostitute before she entered the order, and Kṛśagautamī had indeed—though unwillingly—eaten her son. But, although correct and clearly learned, Sthūlanandā is also presented as talking like a slave girl or nasty stepmother. She appears here as aggressive and herself nasty, but also easily hurt and very human. She may act like a typical woman (as understood by an Indian man) but is acknowledged to be well-informed and learned, which a typical Indian woman would not have been (by that same man). If nothing else, then, the complex character of Fat Nandā is starting to come more clearly into focus.

In these first two cases in the *Bhikṣuṇīvibhaṅga* where the nun Sthūlanandā calls someone a bastard, she calls other women—fellow nuns—that, and she does so again in the same section when some other nuns suggest that she teaches the Dharma only out of greed and for material possessions (Ta 296b.7). More commonly, however, in both this section and in the *Kṣudrakavastu* the recipient of this term of abuse spoken by Fat Nandā is a man, and here another aspect of her complex character becomes visible.

If in the sketches of the interaction between Sthūlanandā and the monk Kāśyapa already mentioned she can be read as arrogant and aggressive, or as not particularly impressed with male religious authority, these other passages leave the impression

[3] *gnas brtan ma'i rgyal mo*. This is the feminine form of the male monastic title *sthaviro rājanyaḥ*, which is applied to monks of at least twenty years' standing. See Schopen 2000:140 and 2014:48–9. Neither form is at all common.

that this did not apply just to male religious figures, but extended to all men. And an integral part of this impression is how she—in one case the whole Group of Twelve—deploys our term of abuse. Sthūlanandā calls a goldsmith, who accosts her about an earring she had wheedled out of his wife, a bastard (Ta 182b.7). She does the same to a man who gave her money because he thought she was a prostitute and then wanted it back (Ta 313a.6).[4] Even more striking is the following exchange between the young nuns in the convent and Sthūlanandā:

> "But where are you going, Noble One?"
> "Today I am going on the road to the six great cities."
> "But who is going with you as your attending menial?" they said.
> "I am going alone," Sthūlanandā said.
> "And if some were to deprive you of your virtue what will you do?"
> She said: "If those bastards even touch me, I'll just knock their teeth out with my black bowl!" (*gal te bu zan mo'i bu dag nga la reg tu 'ong na ngas lhung bzed nag pos so bcag tu zad mod ces smras pa*; Ta 120b.6)

A few pages later it is the Group of Twelve as a whole that says to some women threatened by soldiers: "Sisters, if those bastards come, you can be sure we will knock their teeth out with our black bowls!" (*phu nu mo gal te bu zan ma'i bu rnams 'ongs na lhung bzed nag pos so gcag gis rton cig*; Ta 122b.1). These nuns appear, at the least, as not easily intimidated by men but themselves rather intimidating to them, and although some modern sensibilities might approve of this, it is extremely unlikely that the Buddhist men who wrote and read these texts would have.

The last section of our Monastic Code in which the term *bu zan mo'i bu* occurs is the portion of the *Kṣudrakavastu* that is concerned with religious women. Here too there are six, possibly seven occurrences. Here too in all but one the term is used by a woman, in fact the same woman, the nun Fat Nandā. These instances do not add very much new but confirm and in part extend what has already been noted and can thus serve as a kind of summary of what has been seen. The first occurrence in this part, however, might be particularly interesting. Here Sthūlanandā only indirectly calls a group of children "(little) bastards." The text goes like this:

> When the Blessed One had said "A nun must wear a sanitary napkin (*sme gab* = *rajaścoḍa*)" and the nuns wore them, then on a later occasion Sthūlanandā went for alms and her sanitary napkin fell off onto the street. Boys and girls playing on the street saw it and asked her, saying, "What is this, Noble One?"

[4] The cultural confusion of Buddhist nuns and prostitutes appears to have been an ongoing issue and is addressed on a number of occasions. In part this could have arisen simply from the fact that prostitutes were the only other unmarried women who lived together in groups in Indian towns or cities, some of whom were highly literate. In this instance the potential for confusion was exacerbated because Sthūlanandā was wearing a wig (*skra brnyan*), and it was this incident which gave rise to the rule—apparently unique to the Mūlasarvāstivādin *Bhikṣuṇīprātimokṣa* (Ta 21a.7)—forbidding nuns from doing so. But see also below.

> Sthūlanandā, being angry at what they said, said: "Go to a bastard girl and your sister (*phu zan mo'i bu mo dang / sring mo'i drung du deng la*) and ask! They will show you!" (Da 154a.3)

The construction here suggests that the children's sisters and bastard girls were one and the same, making the children bastards too, and it is very likely that the only children who would be playing on the streets in Classical India were urchins, orphans, and other children of questionable parentage.

But in this section of our Code it is not just children who irritated Sthūlanandā (and it is important to note that everywhere our term is used out of some form of irritation); she also at least once, and perhaps twice, is irritated by a lay woman whom she predictably calls a *bu zan mo'i bu mo* (Da 186a.4). In the first case the reading is certain. In the second, which occurs about a line and a half further on, Sthūlanandā calls the same woman a *bu zan ma*. This might or might not be a mistake for *bu zan ma'i bu*—the spelling of the latter is not always consistent, as will have been noticed. Or in this second case Sthūlanandā may also be calling her a 'witch' (*ḍākinī*, *rākṣasī*). There is also some uncertainty about the reading—but not the irritation—in the one case in this part of our Code in which our term is used by men.

The little text in which our term is put in the mouth of men delivers the rule that monks are not supposed to beat up nuns. It refers back to a long account in the *Bhikṣuvibhaṅga* in which a traveling troupe of actors while putting on a play based on the life of the Buddha incorporates into it a farcical scene making fun of the Group-of-Six Monks (see Schopen 2014:419–23). Our little text says then that the Group-of-Six blamed the Group-of-Twelve Nuns because they gave the actors monastic bowls and robes so they could dress up as the Group-of-Six Monks. In one printing, the latter say: *bu zan mo'i bu de la de dag gis lhung bzed dang chos gos dag ma byin dang / des bdag cag la dbya bar mi 'gyur ba zhig na* (Da 159a.5) "If they [the nuns] had not given bowls and robes to that bastard [the leader of the troupe], he could not have made fun of us." But in another printing the text reads: *bu zan ma'i bu de dag gis lhung bzed dang chos gos dag ma byin dang des bdag la 'phya bar mi 'gyur ba zhig na* "If those bastards [the nuns] had not given bowls and robes, he [the leader of the troupe] could not, etc." So, while who exactly the bastards are here remains unclear, there is no doubt about the degree of irritation of the monks: after saying what they do, they go and beat poor Sthūlanandā to a pulp "with slaps and sticks and kicks and fists."

There is also no doubt about Sthūlanandā's irritation in the last three occurrences of our term. All three are spoken by Sthūlanandā, and all three are directed at men. In two of these cases these are not just any men but the king's men (*rgyal po'i skyes bu dag*), government officials on official business; in the third it is rough types who prey on prostitutes. Two in fact deal with prostitution, but since all three are built on essentially the same narrative frame, the presentation of one will suffice. It is particularly interesting for two reasons. It expresses a view of—in fact a justification for—prostitution that is not commonly met with in Indian sources. It also presents

in one place, as it were, the nun Sthūlanandā in all her complexity and is an almost perfect example of how this figure can be read in at least two very different ways: as an intended portrait and as an inadvertent one. It deserves to be translated in full:

> The setting was in Śrāvastī.
>
> At that time, the nun Sthūlanandā in the morning put on her under-garment and robe, took her bowl, and set out in Śrāvastī for alms. When she had set out for alms and saw then a prostitute wearing very beautiful clothes and underwear, adorned with very beautiful jewelry, she, seeing her, asked: "Little sister, where did such clothes and jewelry come from?"
>
> The woman said: "Noble One, by engaging in prostitution I get here such things."
>
> Sthūlanandā thought to herself: "This being a good idea, I should see if it works or not." Thinking about that and keeping it in mind, she went on. Then at another place when she saw a girl with filthy clothes who was poor even in food, who moved along shuffling, but who had a beautiful lovely face, she asked: "Daughter, whose are you?"
>
> She said: "Noble One, whoever gives me food and clothes, I will work for him."
>
> Sthūlanandā said: "If that is so, daughter, why don't you work as a prostitute?"
>
> The girl, plugging her ears, said: "Noble One, you must not say such a thing! No one in my family has ever done such unlovely things!"
>
> But Sthūlanandā said: "Since, daughter, such is an occupation for a woman, even girls of whom it is said 'This is a Kṣatriya' have likewise thus become prostitutes—likewise even girls of whom it is said 'This is a Brahmin.' Since many such have come from even the best families, and while indeed a woman is one who fancies men, I, if not a renunciant, might have done so, but as a renunciant it is not easy."
>
> Having been beguiled by her, the girl said: "Can I be a prostitute like this, Noble One? Noble One, if I am to be such a prostitute, I will need many things for that: a great house where many men can congregate, clothes, jewelry, unguents, and much food and drink will be needed."
>
> Sthūlanandā said: "That being so, daughter, if I provide all of that, and if you give me all the profits, I will provide your food and clothing and so forth."
>
> The girl said: "Since, Noble One, that is fine, I will give you the profit."
>
> When Sthūlanandā had a house for her constructed near the nunnery, she gave the girl what she had said, and then later, after bathing her and giving her beautiful clothes and jewelry, she started to work after several days. She being nubile and beautiful made herself into a prostitute. Being overwhelmed by the force of depravity, everybody crowded in there.
>
> When the other prostitutes saw that, they were envious and not sanguine.
>
> Sthūlanandā came to have great profits.
>
> After that, at a later time, a great festival occurred in the palace, and since there was a need for much perfume, the king's men brought in all the prostitutes in order to requisition perfumes. They, because of envy, told the king's men about her too: "There is a prostitute of Sthūlanandā's near the retreat house—you should bring her in too!"
>
> They seized her and brought her in, but she, weeping, said: "Noble Sthūlanandā, I have been taken in by the king's men!" And Sthūlanandā hurriedly rushed there saying, "Where have you bastards taken this daughter of mine?"
>
> They said: "Does the Noble One also practice prostitution?"
>
> "Having stepped on the necks of my enemies, I humble them and provide!"
>
> "Does the Noble One have enemies?"
>
> "Since you took my daughter, you yourselves are among my biggest enemies!"
>
> When brahmins and householders saw them quarreling, they asked, "Ho—what is this?" and someone told them exactly what occurred. They were contemptuous, critical, and complained, saying, "These Buddhist ascetics have gone completely up in flames. Ascetic life and purity have gone up in flames. Now even a bald-headed female ascetic provides prostitutes."
>
> The monks, having heard what had occurred, asked the Blessed One, and the Blessed One thought: "Sthūlanandā has done a thing that is not fitting for an ascetic. Therefore a nun should not induce one to be a prostitute." Having so thought, he said: "Monks, the point is this: Sthūlanandā has done much that is not fitting for an ascetic, and brahmins and householders are contemptuous, critical, and complaining. Therefore, a nun should not induce one to be a prostitute. If a nun induces one to be a prostitute, she comes to be guilty of a gross transgression." (Da 156b.7–158a.3)[5]

[5]The rule in Tibetan reads: ***de bas na dge slong mas smad 'tshong ma byed du mi gzhug go***, and the verb here—which I have translated as 'induces'—is a widely attested translation of ***kārayati***. This and this alone is forbidden. How carefully this wording might have been chosen is suggested by the different wording in a "similar" rule in another Buddhist Code for nuns: ***sā eṣā bhikṣuṇī veśyām upasthāpayati tena jīvikāṃ kalpayati vinayātikramam āsādayati*** "Si une nonne entretient une prostituée et en vit, elle commet une infraction à la discipline" (Nolot 1991:344). What the second forbids the first does not.

As already noted, this text contains a remarkable view of prostitution. Sthūlanandā, a learned Buddhist nun, is made to assert, in the face of the girl's strong resistance, that it is a natural occupation for women, that even high-caste women from the best families engage in it, and that she might too if she were not a nun. Her assertion fits with the high status and prestige accorded to at least certain kinds of prostitutes in Classical India and is presented here as entirely persuasive. Moreover, it is only in an account like this with all its detail that the multivalence of the figure of Sthūlanandā comes entirely into view. Notice that she can be read here in at least two ways. She can be read as scheming, always looking to make a buck, exploitive of the poor, aggressive, without respect for authority, and foul-mouthed. This is almost certainly the reading intended by its male authors since they clearly condemn her and her actions through the mouth of the Buddha. But this same figure can also be read as observant, even entrepreneurial, concerned with the plight of poor women and with providing them a comfortable living not otherwise available, self-confident and not impressed or cowed by male authority, and perfectly capable of addressing male officials with terms of abuse. This second reading is almost as certainly inadvertent, which may make it even more valuable, but it is also important to recognize that while this second reading might very well appeal to modern western feminist sensibilities, it too—almost certainly—would not represent our male authors' view of an ideal woman. Quite the contrary.

One thing here, however, may have come to be clear. It seems certain from what we have seen that a consistent and important aspect of the presentation of Sthūlanandā's character is her language. She repeatedly uses the term ***bu zan mo'i bu***, which appears more certainly to translate the obscure Sanskrit compound ***putramoṭikāputra***. But regardless of whether ***bu zan mo'i bu*** is translating ***putramoṭikāputra***, and in spite of the unsettled etymology of the latter, there can be no doubt that this is a strong term of abuse spoken out of irritation, anger, or envy, overwhelmingly by women. It is used by a nasty stepmother twice; by a slave girl; by a disapproving mother-in-law, probably, also twice; occasionally by the whole group of disreputable nuns Sthūlanandā is associated with; and rarely by the equally disreputable Group-of-Six Monks. It is almost never used by a man. This would appear to be a considerable contrast to what might be found in Classical Indian literature. In the drama entitled *Mṛcchakaṭikā*, for example, terms of abuse that have been translated as 'bastard' or 'son of a bitch' (***kāṇelīmātṛ***, ***dāsyaputra***, etc.) occur more than two dozen times, but they are never used by women, only rough or disreputable men (the ***vidūṣaka*** or buffoon, the ***viṭa*** or rogue, etc.).[6] Only the drunken female "disciple" of the Śaivite monk in the ***Mattavilāsaprahasana*** talks like Sthūlanandā (Lockwood and Bhat 2005:156). This is odd and asks for some explanation: what possible reason could our male authors

[6]Acharya 2009: ***dāsyaputra/-putra***, 15, 24, 58, 134, 152 (to a woman), 154, 210 (of a woman), 224 (of a woman), 232, etc.; ***kāṇelimatṛ***, 42, 44, 50, 332, 336, etc.

have for representing what they repeatedly describe as a very learned nun in this unflattering way?

That there were Buddhist nuns from early on seems clear enough from Aśoka. That there was resistance to them on the part of literate males, however, seems equally clear from how monk authors chose to construct their accounts of the origin of the order of nuns, which are well known. But since it is also certain from early inscriptions that there were learned nuns as well—at least one of whom was, like Sthūlanandā, repeatedly said to be one who knows the Three Baskets (Schopen 1997:246–8)—male authors apparently could not deny that there were such nuns. The most that they could do was to present them in the worst possible light, as aggressive, arrogant, silly perhaps, but never stupid. One way of doing that might well have been to have them talk like nasty stepmothers, slave girls, drunken Śaivite disciples, and rough and disreputable men. This at least may be one possible explanation of the figure of Sthūlanandā. But I cannot end by leaving a suggestion here that our honoree talks at all like Sthūlanandā, at least not regularly. I end rather with the hope that she might be amused by what some male authors tried again to make of women in Classical India.

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Iranian Cognates of Vedic *śáśvant-* and *-śás*

NICHOLAS SIMS-WILLIAMS

The meaning and etymology of Ved. *śáśvant-* 'forming a continuous series, numerous, frequent, all together, each', comparative *śáśīyas-*, adverb *śáśvat* 'continuously, again and again', were discussed in detail by Gert Klingenschmitt (1975), who argued that the underlying root is also to be found in the distributive and multiplicative suffix Ved. *-śás*, Av. **-sō* (attested via the sandhi-form *-sə̄s-ca*), Gk. *-κάς*, PIE **-ḱás*. Thus *śáśvant-* etc. would show the same assimilation of the two sibilants as the word for 'hare', Ved. *śaśá-*, Khot. *saha-* < Indo-Iranian **ćasá-*. According to Klingenschmitt, an Avestan equivalent of *śáśvant-*, without the assimilation, may be attested by the fem. form *saŋᵛhait-ī-* in Yt. 19.12. Klingenschmitt's interpretation of *saŋᵛhaitī-* as 'forming a continuous series', i.e. 'continuing from generation to generation', seems very plausible in view of its collocation in this passage with *amarš̌aṇtī-* 'imperishable' and has been accepted in two of the three most recent editions of this Yasht (Pirart 1992:25 and Hintze 1994:119–20). In the latest of the three (Humbach and Ichaporia 1998:89) it is rejected with the statement that "the context does not favor the comparison of *saŋᵛhaitīš* with Ved. *śáśvant-*," a remark which is hardly justifiable.

In passing, I would like to mention the possibility that Sogd. *s't* 'all', so far without etymology, might also be cognate with Ved. *śáśvant-*.[1] Although the Sogdian form clearly cannot derive from **sah-wa(n)t-*, a derivation from **sah-a(n)t-*, thematicized **sah-at-a-*, would be phonologically regular (cf. Sogd. *r'k* 'vein' < **rahaka-*, Gershevitch 1954:61 §399). The relationship between the two forms **sah-a(n)t-* and **sah-wa(n)t-* would be precisely parallel to that between pairs such as **yaH-a(n)t-* and **yaH-wa(n)t-* or **čiH-a(n)t-* and **čiH-wa(n)t-* (for which see Klingenschmitt 1972:100–1 and Sims-Williams 1997:317–22).

As has already been mentioned, an Iranian equivalent of the Ved. suffix *-śás* is clearly attested in Av. *-sə̄s-*, a sandhi-form of **-sō*, which is used as a multiplicative suffix in the unique form *nauua-sə̄s-ca baēuuąn* "and nine times ten thousand" (Yt. 13.59, Vd. 22.2). In this case too a Sogdian equivalent has been claimed. According to Gershevitch 1962:95, the expression *10 10 2sw* in the marriage contract from Mt. Mug (Nov. 4, V1) may be read **δas δas δwa-su* and translated "at the rate of two for each

[1] I owe the germ of this idea to a suggestion from Eijiro Doyama, but he should not be held responsible for the use I have made of it.

ten," i.e. "at 20% (interest)." A minor problem with this interpretation is that one would not expect PIr. _*-sah_ to result in Sogd. _-su_ but in _*-si_ (if accented) or _*-s_ (if unaccented). To meet this objection, which was first raised by Emmerick (1992:334), one could assume that the adverbial neuter ending _*-u_ < _*-am_ was secondarily added to the inherited _*-s_, or alternatively that the final _-w_ is merely graphic as it so often is in Sogdian script. However, as I have suggested _apud_ Yakubovich 2006:327–8, given that the sequence _10 2_ normally stands for the numeral '12', Manichaean Sogd. _δw'ṭs_, it seems more straightforward to interpret the sequence _10 10 2sw_ as _*δas δwāts_, literally 'ten twelve', with a phonetic complement _-s_ as in the common spelling _10s_ for _*δas_ 'ten' (cf. Sims-Williams 1978:260 on _Dhu_. 269) and graphic final _-w_. To judge from the Bactrian phrase _α' β' τωζαμο_ "we shall pay (at the rate of) two (to) one," literally "one two we shall pay" (already cited by Yakubovich, _loc. cit._), such an expression should mean "at the rate of twelve to ten," i.e. "at 20% (interest)." Thus we reach exactly the same meaning as Gershevitch, but by a different route.

I turn now to the main purpose of this short paper, which is to propose a new etymology for Parth. _hs_ 'formerly', _'c hs_ 'from the first, in the beginning' (= MMP _'c 'hy_), _hsyng_ 'former, primeval, ancient' (= MMP _'hyng_), _hsystr 'c_ and _'c . . . hsystr_ 'before'. The equivalence of the Parthian and Middle Persian forms was first recognized by Henning (_apud_ Boyce 1954:189), who saw that the MP _h_ corresponding to Parth. _s_ must derive from an OP _*θ_, implying an etymon with PIE _*k̂_.

Though Henning did not himself offer an etymology for these words, others have not been so reticent. MacKenzie (1967:28) suggested that Ved. _śáśīyas-_ represents an assimilated form of _*sáśīyas-_, whence PIr. _*has(i)yah-_, OP _*haθiyah-_, and thus ultimately Parth. _hs_ and MP _'hy_—a solution which is evidently incompatible with Klingenschmitt's etymology of _śáśīyas-_ and _śáśvant-_, and which would leave these words without any cognates outside Indo-Iranian. Gershevitch (_apud_ Morano 1982:10 n. 7) proposed a verbal noun and adjective _*hasa-_ 'obsolescence; obsolescent, belonging to bygone days' derived from a Proto-Indo-European inchoative present _*sn̥-sk̂o-_ 'to become old' (cf. Lat. _senēscō_)—a highly speculative derivation, even if one were prepared to accept the necessary assumption of what Gershevitch calls "inchoative theta," i.e. his theory that PIE _*sk̂_ sometimes results in OP _θ_ instead of expected _s_. In the most elaborate etymological discussion so far, Nyberg (1970) derives MMP _'hy_ from the OP hapax legomenon _a-θ-i-y_ in DB I.91, which he reads as _aθaiy_ and translates as 'earlier', deriving it from an Indo-Iranian _*aśai_ (i.e. _*aćai_) related to Gk. ἐκεῖνος 'that, yonder'. However, a much more straightforward explanation is available for OP _aθaiy_, which can equally well or better be translated as 'then' and derived from _*aθa_ + _*id_ (thus Mayrhofer 1960:123–4; Klein 1988:410; Schmitt 1991:55; differently Gershevitch 1959:171–2 and 1979:141). Two problems with Nyberg's explanation, apart from the long-range nature of his etymology, are the initial _h-_ of the Parthian form, which has to be regarded as unetymological, and the fact that he is unable to offer a plausible explanation of the well-attested use of _KZY_, i.e. Aramaic _kzy_ 'as, when, whereas', as

the logogram for the MP word.[2] Ideally, then, one should seek an etymon with initial _*h-_, which would be preserved in Parth. _hs_ but lost in MMP _'hy_ by dissimilation from the _h_ (< OP _*θ_) of the following syllable. At the same time, the postulated form should be capable of expressing a meaning compatible with that of Aramaic _kzy_ as well as with the attested meanings of Parth. _hs_ and MMP _'hy_.

An etymon that seems to me to fulfill both of these criteria would be a PIr. _*hasah_, OP _*haθa_, from a notional PIE _*sm̥-k̂ás_ 'once'. Such a form would be parallel to Ved. _sakŕ̥t_, Av. _hakərət̰_ 'id.', but with _*-sah_ (Ved. _-śás_) rather than _*-kr̥t_ (Ved. _-kŕ̥t_) as multiplicative suffix. From 'once' in the sense 'on one occasion' it is a small step to the meaning 'formerly, once upon a time'. It is likewise a small step to a conjunction '(when) once, as soon as' as in English: "Once Stephanie arrives, we can open the champagne." Although MMP _'hy_ is not attested in this sense, one may compare the development of OP _hakaram_, a close cognate of Av. _hakərət̰_ 'once', into the MP and ModP conjunction _agar_ 'if; when'.[3] If OP _*haθa_ underwent a similar development, its representation by the logogram _KZY_ 'as, when' would be unproblematic.

An apparent difficulty with this explanation is the final _-y_ of MMP _'hy_. From OP _*haθa_ one would expect merely _*'h_. The most obvious solution is to explain the final _-y_ as an additional suffix or particle, e.g. _*id_, that is, to start from an OP form such as _*haθaiy_. If Parth. _hs_ likewise derived from an extended form such as _*hasai_, its relationship to MMP _'hy_ would parallel that between Parth. _ms_ 'further, furthermore' < _*mas(i)yah_ and MMP _mhy_ (beside _myh°_) 'greater' < _*maθ(i)yah-_. A possible alternative is to regard the MP final _-y_ as a merely graphic phenomenon resulting from the existence in the standard MMP orthography of several short monosyllabic words in which final _-hy_ appears to be a conservative or historical spelling for [-h]. In addition to _mhy_ (beside _myh°_, Classical Persian _mih_) 'greater', one can cite _why_ (beside _wyh°_, Classical Persian _bih_) 'better' and _rhy_ (beside _rh̲_ and _ryh°_) 'chariot'; cf. also _ghy_ 'then' (without variant in _-h_). A pseudo-historical writing of _'hy_ for _*'h_ could also have been aided by the existence of another word spelled _'hy_ (cf. Henning 1958:90 n. 2 on the confusion of MMP _'ny_ 'other' and _'n_ 'I'). As noted by Nyberg (1970:344), a second _'hy_ does in fact seem to be attested in at least one Manichaean Middle Persian passage, where _'hy_ occurs with the imperative: _'hy b'š [ny]rwg'wnd_ (M 28 II, V I 13–14, in Andreas and Henning 1933:25). Here Nyberg takes _'hy_ to be a variant of the interjection _'yy_ 'oh!', but the meaning 'then' originally guessed by the editors is at least equally suitable: "Then be Thou powerful!" This meaning also suits a passage from the _Shābuhragān_, where _'hy_ occurs with a subjunctive in future sense: _'hy 'wl 'hynz'd_ "then he will draw

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[2] His attempt is not convincing: "I may, however, venture the guess that it is a mutilation of the expression KZY QDMN 'as previously', used in Persian administrative Aramaic" (Nyberg 1970:346). In an earlier discussion Nyberg (1931:104–5) had suggested that _KZY_ was originally the logogram for a different MP _*has_ derived from OP _*aça_ (< _*aθra_) 'here; then'.

[3] OP _hakaram_ is in fact attested only once, in a difficult passage (DNb 34–5), where its meaning is most likely '(at) once', see Schmitt 2000:43. For MP _agar_ in the sense 'when', particularly in the expression _agar ēw bār_ 'when once', as well as Kurdish _agar_ 'when', see MacKenzie 1999:31, 270.

(it) up" (M 7984 I, R I 3–4, translated 'zuerst' in Hutter 1992:75–6, but '*dann' in Andreas and Henning 1932:19). If this interpretation is correct, [2]*ʾhy* 'then' may be the direct descendant of OP *aθaiy* 'then', only secondarily confused with [1]*ʾhy* (*recte* **ʾh?*) in the phrase *ʾc ʾhy* 'from the beginning' (M 7984 I, R II 20 in Andreas and Henning 1932:11 and Hutter 1992:42–3).

Apart from one passage where *ʾhy* appears out of context with a lacuna on either side (Sundermann 1973:33, line 524), all published occurrences of MMP *ʾhy* have been cited in the preceding paragraph. Thus the spelling of [1]*ʾhy* with a final *-y* may in fact be a hapax legomenon. In the Middle Persian inscriptions and in Zoroastrian Pahlavi, the only spelling attested for this word seems to be the logogram *KZY*, which can of course stand for *ah* just as well as for *ahy*.

In Inscriptional Middle Persian the expressions *KZY* 'formerly' and *MN KZY ʾwlwny* 'from the first' are well-attested in the inscriptions of Kirdir, while the adjective corresponding to MMP *ʾhyng* occurs in the Paikuli inscription in the remarkable semi-logographic spelling *KZYnky* (Skjærvø 1983:105). In the manuscripts of the *Frahang ī Pahlawīg*, chapter 25, *KZY* is glossed by *hs*, written thus in Avestan, Pahlavi, and even Arabic letters (see Nyberg 1988:26–7, 105). In Pahlavi, *hs* or *ʾs* would of course be a normal way of writing *ah* < **haθa*, with *s* standing for [h] < **θ* as in *gʾs* [gāh] < **gāθu-*, **gāθā-* etc. That this spelling was avoided in practice may have been due to the risk of confusion with the identically written word for 'wine'; in this context it is irrelevant whether the spelling in question is a logogram *HS* (as generally thought, following Henning 1954:43 with n. 3) or a phonetic writing of a MP **has* 'wine' (with Nyberg 1970:345). That these two words were indeed confused is shown by a passage of the *Mēnōy ī Xrad*, ingeniously elucidated by Nyberg, where it appears that a copyist twice misinterpreted *HS* 'wine' as *hs* 'formerly' and therefore replaced it with the logogram *KZY*.[4]

In conclusion, we must consider Inscriptional Middle Persian and Zoroastrian Pahlavi *HT*, which is listed in the *Frahang ī Pahlawīg* as the logogram representing the conjunction *agar* 'if; when'. The interpretation of *HT* is problematic because no such word seems to be attested in Aramaic and none of the explanations so far proposed is entirely satisfactory. The most popular, first mooted by Nöldeke (1878:43 n. 3) and strongly supported by Schaeder (1942:9–11), is to regard *HT* as a graphic corruption of **HYN*, a *plene*-writing of Achaemenid Aramaic *hn* [hin] 'if'. Henning (1958:128 n. 3) objected to the assumed *plene*-writing and pointed out that the expected *HN* is attested in Inscriptional Parthian as a logogram for *yad* 'until' (perhaps originally for *yad* 'if'). It is probably as a result of Henning's objection that MacKenzie (1971:6) derives *HT* directly from Aramaic *hn*; but this undermines Schaeder's palaeographic argument, which was based on the similarity of the letter *-t* and the sequence *-yn* in Aramaic script. The alternative finally adopted by Nyberg (1988:102–3) was to reconstruct an Aramaic **ḥat(t)* < **ḥad-t* 'once', supposedly a derivative of *ḥad* 'one'. However, as Nyberg himself had remarked when he first floated this idea, more than half a century earlier (1931:105–6), no such formation is attested in Aramaic. At that time he therefore gave preference to the hypothesis that *HT* is in origin an Iranian form, which became obsolete and thus came to be regarded as a logogram representing its synonym *agar*.

[4] Nyberg 1970:345 and 1974:97–8, correcting Nyberg 1931:104–5.

The weakness of this hypothesis, in the form in which it was presented by Nyberg in 1931, is that the assumed etymon, PIr. **aθa* 'so', has neither the required meaning nor the initial **h-* required by the spelling. But it may be worth reviving and adapting Nyberg's suggestion in the light of the evidence presented above for the existence of an OP **haθa* synonymous with *hakaram* 'once'. In principle, MP **ah* < OP **haθa* could perfectly well be spelled *ht*, cf. Zoroastrian Pahlavi spellings such as *mtʹ* for *mih* 'false' < OP *miθa* or *kts* for *kahas* 'channel'. If *ah* < **haθa* 'once' was used at some stage (perhaps still in the early Sasanian inscriptions?) in the sense 'when (once), when, if', but then fell out of use and was replaced by its synonym *agar*, it would be understandable that the later scribes reinterpreted the spelling *ht* as standing for *agar*, exactly as Nyberg proposed long ago. In that case *HT* would be a "pseudo-logogram," what Schaeder (1942:9) called "ein unechtes Ideogramm."

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Justice in Khotan

PRODS OKTOR SKJÆRVØ

Many years ago, Stephanie and I read Kharoṣṭhī documents with a Harvard graduate student. I am pleased to offer her something from this remote area of our studies.

1 Background

The documents presented here are in the Iranian language of 8th-century Khotan, located along the western stretch of the southern Silk Road through Chinese Turkestan (Xinjiang).[1] This language, which I have termed Middle Khotanese, differs from both the earlier Old Khotanese language of a large number of the Buddhist texts found at Khotan and the 10th-century Late Khotanese texts found at Dunhuang, at the eastern end of the southern Silk Road.[2]

The two documents I shall discuss here are today in two different collections. The first document, Hedin 2, comes from Dandan Öiliq (Uiliq), a ruined town in eastern Khotan,[3] and is now in the Hedin Collection in the Museum of Ethnography, Stockholm (Ms. 1941.36.2). The site was discovered by the Swedish geographer and explorer Sven Hedin, who traveled to Khotan for the first time in 1894–7,[4] but the manuscripts were obtained from locals and brought back by Nils Peter Ambolt, one of the co-directors of the Sino-Swedish expedition of 1932. Hedin 2 was published with translation and commentary by Harold W. Bailey in 1961.[5]

The second document is in the Petrovsky collection of the Institute of Oriental Studies, St. Petersburg, and was obtained by Nikolaj Fedorovich Petrovsky while he was stationed at Kashgar as consul and Consul General in the 1890s.[6] The Khotanese manuscripts were published by Ronald E. Emmerick and Margarita I. Vorob'yëva-Desyatovskaya in 1993 and 1995. Emmerick was also preparing a glossary and additional commentary, which were left unfinished at his untimely death and which I am preparing for publication.

[1]Since most readers of this volume will not be familiar with the language, the editors graciously allowed me to include a vocabulary of all the texts cited.

[2]On the discovery of the Khotanese manuscripts, see Skjærvø 2002, Introduction.

[3]See Stein 1907:240–303. This is Khotanese Gaysâta /gazāta/.

[4]See Gropp 1993; Wahlquist 2003.

[5]Bailey 1961:21–2 (text), 61–7 (translation and commentary). See also Skjærvø 2008:132–3, 144 (plate 6).

[6]See Emmerick and Vorob'yëva-Desyatovskaya 1995:19–20.

The two documents must be from the same original archive, which contained documents dated between 767 (the first year of Viśa' Vāhaṃ) and 788. Another archive contained documents from the later years of this king, his last being his 36th = 802.[7]

2 The story

Hedin 2 contains, first, a letter written by a Mrs. Budasaṃga to the *ṣṣau* Śattuṃ, a local official, to complain about a certain Sāṃgula, who had taken away her children because her deceased husband allegedly owed him money. On the same page, below her letter, is a copy of the *ṣṣau*'s letter to Sāṃgula. Unfortunately, the ink has eroded the paper, and many ***akṣaras*** have left only holes, only some of which can be tentatively deciphered.[8]

Hedin 2a: The letter from Mrs. Budasaṃga

1 [◡][9] hiyaudä ā̤mācä ṣṣau śattuṃ vara tta haṣḍi yane — — — — — — — — — —
aysä
2 budasaṃgā̤na mijṣye hīye ma-ṃ haṣṭama māśtä khvaṃ kṣāṃdai muḍä u
vetka-ṃ
3 ba-pūraka harya vaña-ṃ saṃ hamye haḍai dva pūra ysyāṃdä u śā dvarä
sāṃgu-
4 li tta-ṃ hve si kṣāṃdai-y-e sā̤na-bāḍä mā̤nai hirä ttude u khu jūṃdai ye ttī-
5 t-ī ni pajistāṃdä nai bve sä ttudä ā ni vaña-ṃ āspāta h*i*yaudäna khu dā bye-
6 hūṃ hīye cūṃ pūra naṣkāḍāṃdä ttyāṃ keṇa-ṃ tta hvādä si yauvarāyāṃ
7 thaṃgä puḍa cu dūva tvā-t-ūṃ ci*g*ye pracai ysyāṃdä —

Bailey's readings: 3 beg.: ma pūraka; end: sāṃgū-; —5 vā for dā; —7 ***ci ttye pracai*** "which was his perquisite" for ci*g*ye pracai.

I make a report to the Lord Minister *ṣṣau* Śattuṃ.

I (2) am Mrs. Budasaṃga. O Lord, here it is the eighth month for me since my husband died and my small (3) boys/children were left behind.

Now, on the very same day, they took away my two sons and one daughter.

Sāṃgula (4) said to me: "Your husband *carried off my property in enemy time."

[7]See Zhang and Rong 2008; Skjærvø 2008.

[8]Italics in the texts = uncertain readings; when cited in the commentary and glossary, italics and roman are reversed; (. . .) = editorial addition, [. . .] = ***akṣaras*** broken out by a hole in the ms., — = space. Spelling: ys /z/, tc /ts/, ts /tsh/, j /dž/, js /dz/. I would like to acknowledge the input of Harvard graduate students Zhang Zhan and Wen Xin, with whom I read all the Hedin and Petrovsky documents.

[9]This sign was originally *si*, an abbreviation for ***siddham***, which was gradually simplified to a sign looking like a bowl with a vertical stroke in the middle.

And when he was alive, then (5) they did not ask for it. I have no idea whether he *carried (it) off or not.

Now my refuge is with the Lord for how I get justice. (6)

O Lord, as for my sons (whom) they "collected," about them they said to me that they (7) owed them as tax for the Young King. As for (my) daughter, her they took (to serve) for/as a Chinese woman for them.

Hedin 2b: The *ṣṣau*'s letter to Sāṃgula

1 ᵕṣṣau śattu tta parī — — *sāṃguli vara* thu budasaṃ*gā*ñä dva
2 pūra ysyai u śā dvarä x *khu ṣa* [...................................... pu]-
3 ṣa haura thyau -*tā* -a *c*i ysaṃ*thi*nai *hā haure ttī*-y-e *tty*e jistä *v*a biśi hvaṃ-
4 ḍā kīra hau x x si x x x x x x x ha] *ḍai ttā parau* tsve[10]

The *ṣṣau* Śattuṃ orders thus: To Sāṃgula.

You took Mrs. Budasaṃga's two (2) sons and one daughter. When . . . (3) give . . . right away. Quickly . . . *that you give it to her with* interest, then . . . you . . . for that (which was) requested . . . all (4) the works of the men . . .

[On the -th] *day [of Siṃjsīṃja?], the order went out to you.

From this it appears that the *ṣṣau* disapproved of Sāṃgula's actions, though, unfortunately, what he ordered him to do to mend matters, other than to give Mrs. Budasaṃga something, possibly with interest, remains unclear.

3 The prequel

It was while reading a wooden slip (a common form of record-keeping) among the St. Petersburg documents at about the same time as I was re-reading the Hedin documents with my students that I came across the name of Budasaṃga and remembered the plight of Mrs. Budasaṃga. It now became clear to me that this little text provided the background for Mrs. Budasaṃga's story. Her letter is fairly unusual in Khotanese literature, and finding two pieces of one and the same story is quite unprecedented.

SI P 142.1[11]

a1 spāta salbī tta parī — budasa*ṃgä* vara tvī mūri haurą̄ñi ye vaña budasa[ṃ]ga
a2 pūri drraṃmāji vistātai khu parau pva[ʾ] tti mūri haura ka ni ttī hā hīvī pūri haura

[10] See Skjærvø 2008:133 on *ṣṣau* Śattuṃ's signature.
[11] Emmerick and Vorob'ëva-Desyatovskaya 1993, pls. 129a,b, 1995:162.

b1 miṣjye hā hīvī pūrä haura ka aysi svī ysai ysai ttara hīsūṃ ko 1-masi daul-
b2 byehi ma-ṃ vā *ʾā c*i parau hauḍi si ttye hā gvāri kalāsca yana[12] 

Emmerick's readings: a1 salī for salbī; —a2 mūri for pūri; —b1 mūrä for pūrä; —b2 s- ni, but *ʾā c*i is almost certain; the first *akṣara a* is clear in a color photo in Emmerick's Nachlass, while the superscript *-ā* is partly rubbed off.

General Salbī orders thus: To Budasaṃga.

You were (supposed) to pay the *mūrā*s (money). Now, Budasaṃga, (a2) you have put up (your) son as collateral. When you hear (this) order, pay those *mūrā*s! If not, then give them your son; (b1) give them (your) wife's son!

When I come there early tomorrow, (guess) whether you will get a first-rate stick!

(b2) There came (someone) here to me who gave the order: "Sort out this dispute for them!"

Here, we learn the reason why Mrs. Budasaṃga's son was taken away from her, but justice in this case appears to have gone too far, since the daughter, too, was taken away. The *ṣṣau* Śattuṃ in charge of delivering the verdict may have had knowledge of this earlier document and ruled accordingly, and it may have been he who sent a messenger to Salbī to "sort out" the business.

The documents are also of interest in what they tell us about Khotanese families. According to the earlier document, Budasaṃga and his wife each had a son, the wife's at least probably being from an earlier marriage. The daughter, who is not mentioned in the earlier document, must then have been theirs together, as Mrs. Budasaṃga obviously had not remarried after her husband's death.

A document similar to Hedin 2 is the following in the Petrovsky collection, which also has a letter of complaint followed by a copy of the official's verdict:

SI P 95.4 (upper left, ll. 1–5) + 93.10 (lower left, ll. 6–8) + 103.15 (right, ll. 1–8)[13]

SI P 95.4 + 103.15
1 hiyaudi ą̄māci ṣṣau sīlāṃ va/ra tta haṣḍi yani — — — — — — — — — — — a-
2 ysi gaysātaji jigeṃḍai hīye [vaña-ṃ] *kṣ*i*ṣṭ*a pamūhaja thauna pajistāṃdi u thau-
3 na ni ya ttī ma jsa auva-haṃ[dastä] nātä paṃjsa thaunaka harṣṭä vīra u [x]
4 gūhi dvī ysāri paṃ-se x [x x] vaña āṃ maṃ ttyāṃ paṃjeṃ thaunāṃ vīra mūri
5 vahajīṃdi paṃ-se vaña-ṃ ā[spāta] h[i]yauṃdina khūṃ dā ī hīye ttū vā parya

[12] General Salbī's signature is known only from this document.
[13] Emmerick and Vorob'ëva-Desyatovskaya 1993, pls. 83a, 65b, 111a, 1995:106, 92, 141 (not combined).

SI P 93.10 + 103.15

6 [spāta sīlāṃ tta pa]rī ——[————————] spāta ṣṣanīrakä vara khu parau
7 [pva' ttye ji]g[eṃ]ḍai ttye gūhi [x x x] par[ya] yuḍä haṃdyaji 10 2 mye ha-
8 [ḍai ttā parau] tsve ———

Emmerick: 5 īhīye 'foreign' [i.e., 'not our own'] for ī hīye.

I thus make a report to the Lord Minister, the *ṣṣau* Sīlāṃ.
I (am) (2) Jigeṃḍaa from Gaysāta.
O Lord, [now] they requested from me 60 cloths for clothes, but (3) there were no cloths. Then the village headman took/received five small cloths from me toward the *remainder plus [x] (4) cows worth 25xx (*mūrās*). Now they are *dunning me (5) for 500 *mūrās* toward those five cloths.
Now my refuge is with the Lord. If there would be any justice for me, order this, O Lord!
(6) [The General Sīlāṃ *orders [thus]. To General Ṣṣanīraka.
When (7) you [hear] the order, order [that the ...] of Jigeṃḍaa's cow be ... -ed.
On the 12th of Haṃdyaja, (8) [the order] went out [to you]

Compare also the fragmentary letter from Achma from Stein's fourth expedition:[14]

1 || hiyaudä ą̄mācä ṣṣau viṣṇadattä vara tta haṣḍi yane ———————— *aysä*
2 kṣā' auvā bisai ysevidṭä hīye maṃ vā aḍā ą̄na rrvīya thauna pastāṃdä [...]

I thus make report to the Lord Minister, the *ṣṣau* Viṣṇadatta.
I (am) (2) Ysevidṭa residing in the Six Towns. O Lord.
They have now ordered from me here (the?) other royal cloths.

4 Notes on Hedin 2a

Line 1. *āmācä* is the local form of Skt. *amātya* 'minister', which was used as the title of a high official in this area. Tibetan and Chinese documents from Khotan have *'amacha'* and 阿摩支 *āmózhī*.

ṣṣau is the title of an official, but does not yet have a satisfactory etymology.[15] There are documents dated "in the year"/"in year X" of such and such a *ṣṣau*.

The triple title is also found in SI P 95.4 + 93.10 + 103.15 and the letter from Achma (above), as well as in the fragmentary Or. 6401/1.3[16] *hiyaudi ą̄māci ṣṣau* [name lost].

[14] Skjærvø 2002:581. See photo labeled T.O.20(B) at http://idp.bl.uk (search for Achma).
[15] See Bailey 1979:412–3.
[16] Skjærvø 2002:19.

Line 4. *ttude* '*carried off': the verb is otherwise known only from the Old Khotanese *Book of Zambasta* 22.235:[17] *jsatāndi śśūjätu satva śśūjīye ggūśto hvaḍāndä ttundāndä drūjo hvatāndä kūre dr̥ṣṭīyate nāndä* "beings struck each other, they ate each other's flesh, / they *carried (it) off, they spoke lies, they took blind views"; and from a Late Khotanese letter found at Dunhuang, Pelliot 2790.66: *herä kiṇa kṣī'ra padaṃji jādä u śūje hīya stūra biśä ttūdä yuḍāṃdä* "for the sake of property, they destroyed the good state of the land and were able to *carry off each other's animals."[18]

bāḍä 'time', rather than 'land' (Bailey: pr. n. Są̄na Bāḍa).

Line 5. *nai bve*, lit. "I do not know it" (*nai*: *ne* + *ī*). Cf. Hedin 3a line 6 *ays-ī āṃ ni bve* "I do not know it," line 10 *khvai a bvīna* (*khvai*: *kho* + *-ī*) "how I shall know it."

dā byeh- 'get justice' is also in SI P 95.4 + 93.10 + 103.15 (above) and in Or. 11252/5a lines 7–8, a fragmentary letter to the *hiyaudä spāta* Sudārrjuṃ 'the Lord General Sudārrjuṃ': *[vaña-ṃ āspāta? hi]yaudāna khu dā byehāṃ* "[now our refuge is] with the Lord (for) how we shall get justice."[19]

Line 6. *naṣkāḍāṃdä* from *naṣkār-*, also some kind of 'take away', is probably more precisely used in the documents for collecting a debt or, as here, a collateral, *draṃmaa-* (whence *draṃmāja-*, see below). Cf. IOL Khot 52/5 in a context similar to ours:[20]

a2 / x maṃ / vaña budattāna u pūra buda /
a3 / b[r]ya ji maṃ nāra naṣkāḍāṃdä thau āṃ /

... Now, Mrs. Budatta and (her) sons Buda[- ...] they *collected my dear wife. Cloth ...

In Or. 11252/4 l. 7, the verb governs *draṃmā* in a context concerning grain for some men about to die of hunger: *khu parau pva' cv-e ra tta jsārä ī thyau thyau-t-ī parya väśtä khu tta hve nä ī biśai draṃmā naṣkāra* "When you hear the order, whatever grain you may have, as quickly as possible please place it (i.e. make it available). If there should be no man (to use?) thus, *collect the collaterals in his house."[21] Note also Or. 12637/17.5 *[...] biśa drramai byahī naṣkyaḍī* "the collateral in his house (or) more was *collected from him" (?)[22] and IOL Khot 23/14 a2 *draṃmai-y-ūṃ bäysī [...]* "he seized my/our/their collateral."[23]

[17] Emmerick 1968:324–5, where 'plundered' for *ttundāndä*.
[18] Bailey 1961:64–5.
[19] Skjærvø 2002:88.
[20] Skjærvø 2002:288, where I read " . ṣā' ḍāṃ dä" for naṣkāḍāṃdä.
[21] On *bisā-* 'house', as well as 'village' (Chin. 村 *cūn*), see Duan Qing 2008.
[22] The form *naṣkyaḍī* is puzzling; it could conceivably be the intransitive counterpart of *naṣkaḍ-*.
[23] Skjærvø 2002:126, 219. For additional texts, see Duan Qing 2014.

The verb Mrs. Budasaṃga uses in line 6 may then be the same word the collectors used when they came to "collect" her collateralized children.

Line 7. *cigye pracai*, lit. "for the sake of a Chinese (female)" or "to be a Chinese 'girl' for them"? Cf. Hedin 9, line 2 *pharṣa sāṃda(ri) hīya cigi bāstāṃ(di)* "they took away the *pharṣa* Sāṃdara's Chinese women."[24]

5 Notes on SI P 142.1

Line a1. The *spāta* Salbī is also in document Or. 9268B,[25] dated in the 17th year, presumably of Viśa 'Vāhaṃ, that is, in 783.

Line a2. *draṃmāja-* 'as collateral'. The term puzzled earlier scholars. Bailey rendered it as 'financial', Skjærvø as '*to make money, money-maker', and Emmerick as '(intended) for payment'.[26] The meaning 'collateral' came to me while I was working on the Hedin and St. Petersburg documents, and Duan Qing (2014) has now independently come to the same conclusion from her study of new material. See also Skjærvø forthcoming. Cf. Hedin 29 *salī 13 māśtä mūñaṃja haḍā 9 kṣuṇä [... tsīṣī]yāṃ tcūrmye salye ṣi' draṃmāje-vāḍä pīḍa[kä ...]* "Year 13, 9 days of the month of Mūñaṃjā, the regnal year [of (king's name)], in the fourth year of the *tsīṣī*s. This letter (which is) a document concerning collaterals [is for the reason that ...]."[27]

Lines b1–2. "Getting the stick" (*daula-*) was a common punishment in Khotan in both the 8th and 10th centuries according to the documents.[28] Cf. Or. 9268B b1.6–7 *cu ttū śūstä pedaṃdina gvārä hamīhyī rruī va mūri 200 heḍi u 50 daulä nāstä* "whoever may change this case from (what has been) polished and executed, to the court he will pay 200 *mūrā*s and get 50 (strokes) of the stick"; IOL Khot S 25.108 (from Dunhuang; teacher's admonition to student) *sāja thyau ... khu dāḷa na byehä* "Learn quickly ... so that you may not get the stick!"[29]

Line b2. *kalāsca* was read by Emmerick as *kalāsū*, who translated the sentence as "make pea soup (?) of this business." It is also in SI P 103.51 line 5:[30] [...] *kalāsca ya*na *khvo ysaṃ*th/- "Sort out [...]! If ... interest [...]" The negated term means approximately 'incompetent'. Hedin 3a lines 7–9 has *akalāści* 'incompetent' and *akalāścauñä*

[24] Cf. Bailey 1961:27, 94.

[25] Skjærvø 2002:68–69.

[26] Bailey 1961:142, Skjærvø 2002:67–8, Emmerick and Vorob'yëva-Desyatovskaya 1995:162.

[27] Cf. Bailey 1961:39, 142–3.

[28] See also Hitch 1998.

[29] Skjærvø 2002:68–9, 533.

[30] Emmerick and Vorob'yëva-Desyatovskaya 1993, pl. 125a, 1995:157 (where "x lā *scaya* ca").

'incompetence': *da[ṃ]di akalāści hiri yuḍai khu ttā h(v)aṃḍi kṣauva ājāṃd[āṃd]i cūḍi ni pajistai u vā-t-e haurąña ya maṃ cu tti mūṛä ysaṃthaḍi himye ṣi' ttadī [x x x] akalāścauñä ya cūṃ tti haṃbā ni biśi uspurri ni pajistai* "What you have done is so incompetent! When the men brought the vouchers to you, why did you not ask (for them)? And you were to deliver them to me! The fact that I had to pay interest on that money, that was such ... incompetence: the fact that you did not request their entire complete amount!"

6 Glossary[31]

-ṃ, *-ūṃ*, encl. pers. pron. 1st sg. (OKhot. *mä*), 1st pl. (OKhot. *nä*), and 3rd pl. (OKhot. *nu*, *nä*). See *aysä*.
a see *aysä*.
a- ya- (OKhot. *väta-*) 'to be, become'; *ī* opt. 3rd sg.; *ya* 3rd sg. fem./3rd pl. masc., *ye* 3rd sg. masc./3rd pl. fem.; OIr. **ah-* **būta-*.
akalāśca- '*incompetent'; *akalāści* nom.-acc. sg. masc./neut. See *kalāsca-*.
akalāścauñi- fem. '*incompetence'; *akalāścauñä* nom.-acc. sg.
aḍā from *aḍāra-* 'other'?
aysä, *a* (OKhot *aysu*) 'I'; *aysī*: + *-ī*; OIr. **ajam*, Av. *azəm*, OPers. *adam*.[32]
ā (OKhot. *au*) 'or'.
ā see *hīs-*.
āṃ see *ąna*.
ājum- ājuṃda-, *ājāṃda-* 'to bring'; *ājāṃd[āṃd]i* 3rd pl. masc.; OIr. *ā-yāmaya-*.
ąna, *āṃ* particle (emphasizing here and now?); from *āna-* 'sitting'.
āspātā- 'refuge'; *āspāta* nom. sg.; + instr.-abl. 'with'.
āmāca- title of official, 'minister'; *āmācä* nom.-acc./gen.-dat. sg.
ī see *a-*.
-ī, encl. 3rd sg. pers. pron.
u 'and'.
uspurra- 'complete'; *uspurri* nom.-acc. sg. masc./pl. fem.; OIr. **us-pṛna-*.
-ūṃ see *-ṃ*.
-e (OKhot. *tä*) encl. 2nd sg. pers. pron.; see *thu*.
auva- (OKhot. *āvuta-*) 'town, village'; *kṣā' auvā* loc. pl.
auva-haṃdasta- 'village headman'.
ka see *ko*.
kalāsca- '*competent'; + *yan-* 'sort out'.
kiṇa (LKhot.) see *keṇa*.
kīra- 'work'; *kīra* nom.-acc. pl.; Av. *kairiia-*.

[31] Verbs are entered with present and past stems. The past tense (commonly called "perfect") is conjugated according to person, number, and gender.

[32] Note OIr. *ć /tś/, ǰ /dź/.

kūra- 'blind, false'; *kūre* nom.-acc. pl. fem.; Sogdian, Persian *kūr*.
keṇa 'concerning, about', postpos. + gen.-dat.; older *kiḍna*, LKhot. *kiṇa*, OKhot. *käḍäna*, ultimately from Skt. *kṛtena*.
ko, *ka* 'if'.
kṣa'- (OKhot. *kṣäṣa* /kṣäẓa/) 'six'; *kṣā'* for *kṣvā'* loc.; see *auvā-*.
kṣāṃdaa- 'husband'; *kṣāṃdai* nom.-acc. sg.; older *kṣuṃdaa-*, cf. Av. *fšuiiaṇt-* 'husbandman', Skt. *kṣumant-*?
kṣiṣṭa (OKhot. *kṣaṣṭi*) '60'.
kṣīra- 'land'; LKhot. *kṣī'ra* gen.-dat. sg.; Tumshuqese *xšera-*, OIr. **xšaiθra-*, Av. *xšaθra-* 'command' and *šōiθra-* 'settlement'.[33]
kṣuṇa- 'regnal year'; nom.-acc./gen.-dat. *kṣuṇä*; Gandhari *kṣuṇa*, TochB *kṣuṃ*.[34]
kṣau 'voucher'; *kṣauva* nom.-acc. pl.; Chin. 抄, 鈔 *chāo*.
khu 'that, when, how'; *khūṃ*, *khvaṃ*: + *-ṃ*
gaysātaja- 'from Gaysāta'; *gaysātaji* nom.-acc. sg.
ggūśtā- 'meat'; *ggūśto* acc. sg.; Persian *gūšt*.
gūhā- 'cow'; *gūhi* gen.-dat./nom.-acc. pl.
gvāra- 'dispute, case'; *gvāri* nom.-acc./gen.-dat. sg.
ci rel. pron.
cigā-, *ciṃgā-* 'Chinese (woman)'; *cigye* gen.-dat. sg., *cige*, *cigi* nom.-acc. pl.
cu 'as for; whatever'; *cv-e*: + *-e*; *cūṃ*: *cu* + *-ṃ*.
cūḍi 'why'.
cv-e see *cu*.
ji particle.
Jigeṃdaa-; *Jigeṃdai* nom.-acc./gen.-dat.
jin- jäta- 'to destroy'; OKhot. *jätāndä*, LKhot. *jādä* 3rd pl.; cf. Skt. *kṣiṇā-*.
jiy- jista- 'ask for'; *jistä* past part. acc./gen.-dat. sg.; Av. *jaiδiia-*, OPers. *jadiya-*.
jūṃdaa- 'alive'; *jūṃdai* nom.-acc. sg.; pres. part. of *juv-* 'to live', Av. *juua-*, Sogd. *žw-*, OPers. *jīva-*.
jya- (LKhot.) see *jin-*.
jsan- jsata- 'to strike'; OKhot. *jsatāndi* 3rd pl.; OIr. **jan- *jata-*.
jsāra- 'grain'; *jsārä* nom.-acc. sg.
tt- oblique stem of *ṣi'* /ẓi/, pers./dem. pron. 3rd pers; *ttū* (OKhot. *ttutu*) acc. sg. masc., *tvā* (OKhot. *ttuto*), acc. sg. fem., *ttye* gen.-dat./instr.-abl. sg. masc./fem., *tti* nom.-acc. pl. masc./fem. *ttyāṃ*, gen.-dat. pl. masc./fem.
tta 'thus'.
ttadia- (OKhot. *ttandia-*) 'so much'; *ttadī* nom.-acc. sg. masc./neut.
ttara, with 2nd person deixis: 'there (where you are)'. Cf. *mara*, *vara*.
ttā, directional particle to 2nd person: 'to you'.
ttī (OKhot. *ttītä*) 'then'; *ttī-t-ī*: + *-ī*.

[33] N. Sims-Williams apud Boyce 1990:7–8.
[34] Bailey 1979:69.

ttud- (OKhot. *ttund-*) past stem '*carried off'; *ttude*, *ttudä* 3rd sg. masc., *ttundāndä* 3rd pl., LKhot. *ttūdä yuḍāṃdä* potentialis.
ttū, *ttyāṃ*, *ttye*, *tvā* see *tt-*.
tcūrama- 'fourth'; gen.-dat. sg. *tcūrmye*; < **čuθra-* (cf. *pūha-* '5th" < *puxθa-*).
tvī, gen.-dat. sg. of *thu* 'you'.
tsīṣīya-, title of official; Chin. 刺史 *cìshǐ*.
tsū- tsva- (OKhot. *tsuta-*) 'to go'; *tsve* 3rd sg. masc.; OIr. **čyawa-*, Av. *šauua-*, OPers. *šiyava-*.
thaṃga- 'tax'; *thaṃgä* nom.-acc. sg.
thu 'you' pers. pron. 2nd sg.
thauna- 'cloth'; *thau* nom.-acc. sg., *thaunāṃ* gen.-dat. pl.
thyau (OKhot. *thatau*) 'quickly'.
daṃdi 'so much'.
dā- 'law, justice'; *dā* acc. sg.; OKhot., Av., OPers. *dāta-*.
duvar- 'daughter'; sg. nom. *dūva*, acc. *dvarä*; OKhot. *dutar-* < **duxtar-*.
dṛṣṭīyatā- 'view'; *dṛṣṭīyate* nom.-acc. pl.; Skt. *dṛṣṭi-*.
daula-, *dāla-* 'stick'.
dva 'two' nom.-acc. masc., *dvī* fem./neut.
drraṃmaa- 'collateral'; *draṃmai* nom.-acc. sg., *drraṃmā* nom.-acc. pl.; ultimately from δραχμή.[35]
drraṃmāja- 'as collateral'; *drraṃmāji* nom.-acc. sg. masc.
draṃmāje-vāḍa- 'document concerning collaterals'; nom.-acc. sg. *draṃmāje-vāḍä*.
drūjā- 'lie'; *drūjo* acc. sg.; OIr. **draujyā-*, cf. OPers. *draujana-* 'liar'.
naṣkār- naṣkāḍa- 'to *collect'; *naṣkyaḍī* (see n. 22), *naṣkāḍāṃdä* 3rd pl. masc.; OIr. **niš-kāra-*, cf. MPers. *hangār-* 'to reckon, count'?
nāta- see *nās-*.
nāri- 'woman, wife'; *nāra* nom.-acc. sg. with *ā*-stem ending.
nās- nāta- 'to take, receive'; *nāstä* = 3rd sg., *nātä* 3rd sg. masc., OKhot. *nāndä* 3rd pl.
ni, *nä* 'not', OKhot. *ne*; *nai*: *ne* + *-ī*.
paṃ-se '500'; < *paṃjsa* + *satä*.
pajiy- pajista- 'to request'; *pajistai* 2nd sg. masc., *pajistāṃdi*, *pajistāṃdä* 3rd pl.; see *jista-*.
paṃjsa '5', *paṃjeṃ* gen.-dat. (OKhot. *paṃjinu*, *i*-stem decl.).
padaṃjā- 'structure'; LKhot. *padaṃji* gen.-dat. sg.; cf. *padīm-*.
padīm- pedaṃda- (OKhot. *padanda-*) 'to make, *execute'; *pedaṃdina* past part. instr.-abl. sg. masc.; OIr. **pati-damaya-*.
pariy- parsta-, *pasta-* 'to order'; *parī* 3rd sg., *parya* imper. 2nd sg. (also 'please'), *pastāṃdä* 3rd pl. masc.; cf. *parau*.
pamūhaja- 'for clothing'; < *pamūha-* 'clothing', OIr. **pati-muxθa-*.
parau- 'order'; cf. *pariy-*.

[35] Bailey 1961:70.

pasta- see *pariy-*.
pīḍaka- 'letter'; < *pīr-* 'to write' < Chin. 筆 *bǐ* 'writing brush, pen'.[36]
puḍa-, past stem of √par 'promise to deliver, owe'; *puḍa* 3rd pl. masc.
puṣa (OKhot. *puṣṣo*) 'right away'.
pūra- 'son; children'; *pūri* nom.-acc. sing, *pūra* nom.-acc. pl.; Av. *puθra-*.
pūraka- diminutive of *pūra-*; *pūraka* nom.-acc. pl.
pedaṃda- see *padīm-*.
pracai 'for the sake of', postpos. + gen.-dat.; Skt. *pratyaya*.
pv'- (OKhot. *pyūṣ-*, *pyūv'-*) mid. 'to hear'; *pva'* 2nd sg.; OIr. **pati-gauša-*, Sogd. *ptγwš-*.
pharṣa, title of official, 'judge'; OKhot. *pharṣavata-*, OIr. **fraša-pati* 'master of questioning'? Tibetan and Chinese from Khotan *phar-śa* and 破沙 *pòshā*.[37]
ba- (OKhot. *bata-*) 'small'; cf. MPers. *wad*, Pers. *bad* 'bad'?
bāḍa- 'time; land'; *bāḍä* gen.-dat. sg.
bāy- bāsta- 'to lead (away)'; *bāstāṃdi* 3rd pl.; OIr. **wādaya-*.
bäysaṃj- bäysīya- 'to seize'; *bäysī* 3rd sg.
biśa- (OKhot. *biśśa-*) 'every, all'; *biśi* nom.-acc. pl. masc.; OIr. **wićwa-*, Av. *vispa-*, OPers. *visa-*.
bisaa- 'residing (in)' + loc.; *bisai* nom.-acc. sg. masc.; from *bisā-*?
bisā- 'house'; *biśa* loc. sg., *biśai*: + *-ī*; OIr. **wić-*, Av. *vis-*, OPers. *viθ-*.
Budattānā- 'wife of Budatta'; *Budattāna* nom.
Budasaṃga-; *Budasaṃga* voc., *Budasaṃgä* nom.-acc.
Budasaṃgānā- 'wife of Budasaṃga', *Budasaṃgāna* nom.-acc.; *Budasaṃgānä* gen.-dat.
byahä (OKhot. *byehä*) '*more'; *byahī*: + *-ī*.
byeh- 'to obtain, receive, get'; *byehūṃ* 1st sg., *byehi*, *byehä* 2nd sg., *byehāṃ* 1st pl.; from **abiy-āfaya-*, OIr. **abiy-āpaya-* (pass. °*āfya-*).
bria- 'dear'; *brya* nom.-acc. sg. fem.; Av. *friia-*.
bv- mid. *busta-* 'to know'; *bve* 1st sg., *bvīna* subj. 1st sg.; OIr. **bauda-*.
ma jsa 'from me'.
maṃ either gen.-dat. 'me' (OKhot. *mamä*) or *ma-ṃ* as 'here (for) me' (OKhot. *mara mä*).
mara 'here'; OIr. *imaθra*.
-masi 'having the size of'; *1-masi* 'the size of no. 1, *prima*'; Av. °*-masah-* 'the length of...'
mānaa- 'my'; *mānai* nom.-acc. sg. masc.
māśti- 'month'; nom.-acc./gen.-dat. sg./nom.-acc. pl. *māśtä*.
mijṣye (OKhot. *mäjṣäte*) 'wife'.
mär- muḍa- 'to die'; *muḍä* 3rd sg. masc.; Av. *miriia-*, *mərəta-*, OPers. *mariya-*.
Mūñaṃjā-, second month of winter.
mūrā-, monetary unit; *mūri* nom.-acc. pl.; < **mudrā-*.

[36] N. Sims-Williams in Emmerick and Skjærvø (eds.) 1997:93–4.
[37] Bailey 1961:56.

ya- see *a-*.
yan- yuḍa- 'to do, make', past stem *yuḍa-*; *yana* 2nd sg. imper. act., *yane* 1st sg. mid., *yuḍai* 2nd sg. masc., *yuḍä* past inf.; OKhot. also *gan- gäḍa-* < **kuna- *kr̥ta-*.
yauvarāyāna- 'belonging to the Young King'; *yauvarāyāṃ* nom.-acc. sg.
ysaṃtha- 'interest' (also 'birth'); *ysaṃthina* instr.-abl. sg. (*-nai*: + *-ī*); Av. *zaθa-* 'birth'.
ysaṃthaḍa- 'interest-bearing'; *ysaṃthaḍi* nom.-acc. pl. fem.; *-ḍa-* from *-gäḍa-*. See *yan-*.
ysāri (OKhot. *ysāru*) '1000'; OIr. **hazahram*.
ysän- ysya- (OKhot. *ysän- ysäta-*) 'to take away'; *ysyai* 2nd sg. masc., *ysyāṃdä* 3rd pl. masc.; OIr. **jyā-/jī-*, Av. *zinā-*, OPers. *dinā- dīta-*, Skt. *jinā-*.
Ysevidta-; *Ysevidtä* gen.-dat.
ysai 'early'.
ysyai see *ysän-*.
ra enclitic 'and'.
rruī 'court'.
rrvīya- 'for the court'; *rrvīya* nom.-acc. pl. masc.
va 'for', postpos. + gen.-dat.; OKhot. *vaska* < OIr. **paskāt* '(following) after'?
vaña, *vaṃña* (OKhot. *vaysña*) 'now'.
vara 'there', postpos. 'to' + acc. in letters; OIr. **awaθra*.
vahaj- 'subtract, dun' (?); *vahajīṃdi* 3rd pl.; OIr. **awa-θanjaya-* 'pull down'?
vā, directional particle to 1st person: 'to me/us'.
viśt- vistāta- 'to place'; *vāśtä* inf., *vistātai* 2nd sg. masc.; Av. *auua-staiia-*.
Viṣṇadatta-; *Viṣṇadattä* nom.-acc.
vistāta- see *viśt-*.
vīra 'on, toward', postpos. + acc., gen.-dat.; OIr. **upariy-ā*.
vetka- (OKhot. *vändäka-*) 'small'.
śā, nom.-acc. fem. of *śau* 'one'.
śśūjäta- (OKhot.) 'each other'; *śśūjätu* acc.sg., *śśūjīye*, LKhot. *śūje* gen.-dat. sg.; from *śśau* 'one' + *śäta-* /źäta-/ 'second', OIr. **dwita-*.
śūh- /źūh-/ *śūsta-* 'adorn, polish'; *śūstä* past part. instr.-abl. sg. masc. with group inflection; renders *alaṃ-kr̥ta-* and *prayojaya-*, ultimately from Skt. *yogaya-* with past stem analogical with roots in *-h-* (< *-s-*)?
Ṣṣanīraka-; *Ṣṣanīrakä* nom.-acc.
ṣi' /ẓi/, pers./dem. pron. 3rd pers. masc.; see *tt-*.
ṣṣau, title of an official.
saṃ (OKhot. *samu*) 'only, very same'; from Skt.
salī- 'year'; *salī* nom.-acc. sg., *salye* gen.-dat. sg.; Av. *sarəδa-*, OPers. *θar(a)d-*.
Sāṃgula-; *Sāṃguli* nom.-acc. sg.
sāj- 'learn'; *sāja* imper. 2nd sg.; OIr. **sāčaya-*.
Sāṃdara-.
sāna- 'enemy'; Sogdian *sān*.
si, *sä* (OKhot. *se*) particle introducing direct speech; cf. *šhyty* 'i.e.' in the Arameo-Indic

Aśoka inscriptions: "Indic word *shyty* Aramaic word"; < ****sahyatai***, OPers. ***θahaya-*** 'be called' < OIr. √ćaŋh, Skt. √śaṃs?
Siṃjsīṃja-, last month of spring.
Sīlāṃ; nom.-acc.
stūra- 'pack/riding animal'; ***stūra*** nom.-acc. pl.
spāta, title of official 'general'; nom.-acc. sg.; OKhot. ***spāvata-***, nom. sg. ***spāvate***, OIr. ****spāda-pati***.
svī 'tomorrow'; OIr. ****swah***, Skt. *śvas*.
haḍāa- 'day'; ***haḍai*** gen.-dat. sg., ***haḍā*** nom-acc. pl.
Haṃdyaja-, first month of summer.
haṃbā 'amount'; OIr. ****ham-bāga-***.
hama- '(one and the) same'; gen.-dat. sg. fem. ***hamye***; Av., OPers. ***hama-***.
hamīh(y)- 'to change'; ***hamīhyī*** 3rd sg. opt.; OIr. ****fra-maiθaya-***.
harya- see ***hars-***.
harṣṭi- fem. '*remainder'; < ***hars-***?
hars- harya- (OKhot. ***hars- harräta-***) 'to be left behind'; ***harya*** 3rd pl. masc.; OIr. ****fra-rixsa-/rixta-***, cf. Skt. ***riṇakti***.
haṣṭama- 'eighth'; ***haṣṭama*** nom.-acc. sg. fem.
haṣḍi- fem. 'report'; ***haṣḍi*** nom.-acc. sg., + ***yan-*** mid. 'to report', polite address.
hā, directional particle to 3rd person: 'to him/her/them'.
him- himya- 'to become'; ***himye*** nom.-acc. pl. fem.
hiyaud-, ***hiyauṃd-*** (OKhot. ***hīyaund-***) 'owner, lord'; ***hīye*** nom.-voc. sg., ***hiyaudä*** acc. sg., ***hiyauṃdina***, ***hiyaudäna*** instr.-abl.; < ****hīvia-***, cf. Sogdian ***xēpθāwand***.
hira- 'thing, property'; ***hiri*** nom.-acc. sg., LKhot. ***herä*** gen.-dat. sg.; Parthian ***īr***, MPers. ***xīr***; renders ***dharma***.
hīvia- 'own, belonging to'; ***hīvī*** nom.-acc. sg. masc., ***hīya*** (for ***hīyi***) nom.-acc. pl. fem.; Av. ***x^vaipaiθiia-***.
hīs- āta- 'to come'; ***hīsūṃ*** 1st sg.; ***ā*** 3rd sg. masc.; OIr. ****ā-isa- *ā-gata-***, Sogdian *ēs- āγat-*.
heḍi see ***haur-***.
herä (LKhot.) see ***hira-***.
haur- hauḍa- 'to give, pay'; ***heḍi*** 3rd sg., ***haura*** imper. 2nd sg., ***haure*** subj. 2nd sg.; ***hauḍi*** 3rd sg. masc.; ***haurāña-*** part. nec. (+ gen.-dat. agent): ***haurąña*** nom.-acc. pl. masc., ***haurąñi*** nom.-acc. pl. fem.; OPers. ***fra-bara-***, Tumshuqese ***ror-***, Sogdian ***θvar-***.
hva- see ***hvāñ-***.
hvaṃḍ-, ***hvaḍ-*** 'man'; ***hve*** (for ***hve'***) nom. sg., ***hvaṃḍi*** nom.-acc. pl., ***hvaṃḍā(ṃ)*** gen.-dat. pl.; OIr. ****auša(h)want-*** 'mortal' (or ****ušiwant-*** 'sentient'?).
hvar- hvaḍa- 'to eat'; ***hvaḍāndä*** 3rd pl.; OIr. ****hwara- hwarta-***, IE. ****swel-***?
hvāñ- hva- (OKhot. ***hvata-***) 'say'; ***hve*** 3rd sg. masc., ***hvādä*** 3rd pl. masc.; OIr. ****xwānaya- xwata-***, Persian ***x^vān-*** 'read'.
hve see ***hvāñ-***, ***hvaṃḍ-***.

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Avestan *fraspāiiaoxəδra-* and an Indo-Iranian Term for a Ritual Girdle*

ELIZABETH TUCKER

1. *fraspāiiaoxəδra-* and the following word, *niδāsnaiθiš-*, are Avestan *hapax legomenona* which occur in *Yasna* 12.9. *Yasna* 12.8–9 form a short *fravarānē* or 'confession of faith' for Zoroastrians within the extended *fravarānē* that occupies the whole of *Yasna* 12:

> Y 12.8 *Mazdaiiasnō zaraθuštriš frauuarānē . . . āstuiiē humatəm manō āstuiiē hūxtəm vacō āstuiiē huuarštəm šiiaoθanəm.*
> Y 12.9 *āstuiiē daēnąm [vaŋᵛhīm] māzdaiiasnīm fraspāiiaoxəδrąm niδāsnaiθišəm xᵛaētuuadaθąm aṣ̌aonīm yā hāitinąmcā būšiieiṇtinąmcā mazištācā vahištācā sraēštācā yā āhūiriš zaraθuštriš.*

A traditional 20th century translation, which relies to a large extent on the work of Christian Bartholomae at the end of the 19th century, is that of Mary Boyce (1984:58):

> Y 12.8 "I profess myself a Mazda-worshipper and follower of Zarathushtra, . . . I pledge myself to the well thought thought, I pledge myself to the well spoken word, I pledge myself to the well acted act.
> Y 12.9 "I pledge myself to the (good) Mazda-worshipping religion, which throws off attacks, which causes weapons to be laid down, by which consanguine-marriage is enjoined, which is just, which of all faiths which are and shall be is the greatest, the best, the fairest, which is Ahuric, Zarathushtrian."

These two sections of *Yasna* 12 are incorporated into the Zoroastrian *kustī* prayers, beginning *jasa mē auuaŋhe Mazda* "Come to my aid, O Mazdā," that are recited as the Zoroastrian man or woman unties and then reties the *kustī* girdle, whose three loops

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around the waist are said to symbolise the three ethical tenets of Zoroastrianism 'good thoughts, good words, good deeds' (most often Avestan *humata hūxta huuaršta*, but in Y 12.8 *humatəm manō* 'the well-thought thought', etc.).

2.1. *fraspāiiaoxəδrąm niδāsnaiθišəm* qualify *daēnąm māzdaiiasnīm* (acc.sg.f.) 'the vision or religion belonging to the Mazda-worshippers'. These long epithets are not divided in the Avestan manuscripts; but the segmentation of the second, *niδāsnaiθiš-*, is fairly clear, as *snaiθiš-* is recognizable as a neuter noun, attested in both OAv. and YAv., meaning 'weapon' (Y 31.18, Yt. 13.71, 17.20, Y 57.10, 16, etc.). Its first element is a YAv. verb stem *ni-δā-*, a prefixed root aorist stem, continuing IIr. **ni-dhā-* 'set down'. Thus the whole compound represents a well-known inherited type of *Rektionskompositum* where the verbal first element syntactically governs the second nominal element, cf. with verbal element based on the root: OAv. *dəjīt̰.arəta-*, YAv. *jit̰.aṣ̌a-* 'destroying truth', *frazābaoδah-* 'removing consciousness'; and with verbal element based on present stems: *tarō.t̰baēšah-* 'overcoming hatred', *vanat̰.pəṣ̌ana-* 'winning battles', OP PN *Vindafarnah-* 'Finding glory', etc.; Ved. *ṛdhádvāra-* 'making wishes succeed', *radāvasu-* 'supplying goods', *taráddveṣas-* 'overcoming hatred', etc.[1]

2.2. The linguistic analysis of *fraspāiiaoxəδra-* is less clear. Until very recently all modern translations of both adjectives have followed either one or other of the two ancient glosses. The Zand has *frāz abgand āyōzišnīh* '(from which) strife (*āyōzišnīh*) is thrown forth (*frāz abgand*)'. This Middle Persian translation points to an understanding of the first element as the compound verb *fra-spā-* 'throw forth' and the second element as a noun *yaoxəδra-*, erroneously derived from the root *yaoz-* 'to be in commotion, be in turmoil'. On the other hand, Neryosangh's Sanskrit renders the whole clause as *āstuve dīniṃ mājdaiasnīṃ parityaktaprativādāṃ saṃnyastaśastrāṃ* "I praise the Mazdayasnian *dīni-* by which contentious speech (*prativāda-*) has been given up (*parityakta-*), by which weapons have been renounced." Probably this is based on a different analysis: *fraspāiia-* present stem 'throw forth' + noun *vaxəδra-* (**uxəδra-*?) 'speech' understood as 'contention'. But neither Av. *vaxəδra-* nor its Skt. cognate *váktra-* has the meaning 'contention' nor any pejorative sense.[2] Moreover, the fact that the attested present stem of the verb *fra-spā-* 'throw forth' is *fraspaiia-* (Yt. 10.43, Aog. 28), not **fraspāiia-*, rules out Neryosangh's understanding of this whole compound.

3.1. The Zand's segmentation into *fraspā-yaoxəδra-* is supported by the fact that *-ā-* is not shortened in the sequence *-āya-*, and by the formal parallelism with the adjacent word:

[1] *sthāraśman-* (RV 5.87.5d) appears at first sight to be formally comparable to the Av. type where the verbal first element corresponds to a root aorist stem; but it is more likely to function as a *bahuvrīhi* 'possessing taut reins' (Jamison and Brereton 2014:771).

[2] At Y 29.8 Zarathushtra asks for *hudəmąm . . . vaxəδrahiiā* 'sweetness (or 'well-formedness'?) of speech'.

fraspā-yaoxəδra-
niδā-snaiθiš-

Both compounds have as first element a root aorist stem in *-ā-*, preceded by a common Avestan verbal prefix (*fra-*, *ni-*).

3.2. However, a noun *yaoxəδra-* is not otherwise attested in Avestan and the second element of the compound cannot be derived from the same root as Av. *yaoz-* or prefixed *āyaoz-* 'to be in turmoil' for diachronic phonological reasons: Av. *-xəδra-* continues an IE labiovelar/plain velar stop + **-tro-*,[3] but *-z-* of *yaoz-* must reflect an IE palatal stop (cf. OP *yaud-*). Bartholomae of course saw this problem with the Zand's gloss, and suggested in an etymological note (1904:1229) that Av. *yaoxəδra-* is the cognate of Ved. Skt. *yóktra-*, an impeccable phonological comparison, cf. Av. *vaxəδra-* 'mouth, speech' : Skt. *vaktra-* 'mouth'; Av. *haxəδra-* 'companionship' < IIr.**sak-tra-*. Nevertheless, Bartholomae was not prepared to depart from the Zand's overall meaning, and he suggested a semantic development in Avestan for this derivative from the IIr. root **yuj-* 'yoke', translating *yaoxəδra-* '(kriegerische) Anspannung sva. Unternehmung; Angriff'. Hence what is fundamentally a medieval translation based on a false etymology has endured because of the authority of Bartholomae's *Altiranisches Wörterbuch*, where he glosses '(den Angriff beseitigend sva.) bewirkend, dass der Angriff eingestellt wird' (1904:1003). A similar translation 'qui fait suspendre l'attaque' appeared in Duchesne-Guillemin's monograph on Avestan compounds (1936:237).

4.1. If *yaoxəδra-* and *yóktra-* both continue an IIr. noun **yaúktra-*, derived from the root **yuj-* 'to yoke, to join', can Bartholomae's meaning for Avestan *yaoxəδra-* be upheld at all? The verb *yaog-/yuj-* occurs frequently with reference to the yoking of animals in Avestan: in the *Gāθās* usually in metaphors, e.g. Y 30.10, Y 44.4, Y 50.7; but in the *Yašts* more literally, e.g. Yt. 10.52 *θβāšəm yujiieiti vāṣ̌əm miθrō yō vouru.gaoiiaoitiš* "Mithra of the wide-pastures yokes his fast chariot," or Yt.9.2 *yuxta.aspa-* 'whose horses are yoked', an epithet of the goddess Druvāspa-.[4] Likewise in early Vedic derivatives from this root normally refer to the joining of animals to work as a team (verb *yuj-*, *yunákti*, noun *yugá-* n. 'yoke'), to the employment of items in the ritual that work together (*yuktágrāvan-* 'who has harnessed the pressing-stones'), or to people who are joined in a friendly alliance, e.g. RV *yuj-* m/f. 'companion', *yújya-* m. 'friend, ally'.

4.2. It is true that Vedic *yóga-* m. in the sense 'mobilization', in contrast to *kṣéma-* 'fixed habitation', is connected with hostile encounters or warfare (see Proferes 2007:17

[3] Hoffmann and Forssman (2004:§60 c., d., g.).

[4] The problematic Avestan noun *yaoxšti-* f. has sometimes been connected with *yaog-/yuj-*, but the spelling with *-x-* may be spurious, and recently most scholars have related it to *yaošti-* (see the discussion by Narten 1986:1979). If this connection is correct, *yaoxšti-* cannot tell us anything about the semantics of nominal derivatives from *yaog-/yuj-* in Avestan.

for a recent discussion), but it refers literally to the action of yoking animals to vehicles when the Vedic tribes were on the move. In other words, the sense of hostility results from an inner Old Indo-Aryan development in meaning that is connected with social conditions in early Vedic India, and it cannot support Bartholomae's translation 'Angriff' for a different derivative from the root **yuj-* in Avestan.

Moreover, it is necessary to take into account the morphology of *yaoxəδra-* since, like its suggested Ved. cognate *yóktra-*, it must be built with the inherited "instrument" suffix IIr. **-tra-* < IE **-tro-* and thus belongs to the class of IIr. nominal stems represented by Av. *dōiθra-* n. 'eye', *(tiži.)dąxštra-* '(sharp)-fanged', Ved. *dáṃṣṭra-* n. 'fang', *śrótra-* n. 'ear', *vástra-* n. 'clothes', *pavítra-* 'strainer', etc.

5.1. The most frequent meaning of the Ved. cognate *yóktra-* is 'harness, yoking thong' that is put on an animal. For instance, the two RVic attestations are:

> RV 5.33.2b
> *hárīṇāṃ vṛṣan yóktram aśreḥ*
> "You have fixed the yoking thong for the fallow bays, you bull" (Jamison and Brereton 2014:698)
>
> RV 3.33.13ab
> *úd va ūrmíḥ śámyā hantv / ápo yóktrāṇi muñcata*
> "Let your wave push up the yoke pins; o waters, let loose the yoking cords" (Jamison and Brereton 2014:515)

5.2. Two scholars have recently attempted to use this normal Vedic sense in translating the Avestan compound *fraspāiiaoxəδra-*. Firstly Kellens (2007:138), who takes the noun *daēnā-* in Y 12.9 to refer to the female figure which appears at an individual's death as his/her soul attempts to cross the Cinvant Bridge: he translates "je salue mon âme-voyance… Elle fait tomber le harnachement, fait déposer l'equipement, soutient l'Agencement en contractant mariage dans la lignée-familiale." Kellens offers no comment, but presumably he is relying on the parallel of the following compound *niδāsnaiθiš-*, and is assuming that the two epithets of the *daēnā* that appear to be morphologically parallel are also parallel in sense and both refer to aspects of laying down the equipment of warfare. But why should there be this tautology, particularly when the third epithet *xᵛaētuuadaθa-* 'characterised by marriage within the community' belongs to a completely different semantic sphere?

5.3. Skjærvø (2008:301) translates the beginning of Y 12.9 "I present with my praise the *daēnā* of those who sacrifice to Ahura Mazdā, throwing off the harness, laying down (her) weapons." According to Skjærvø, there is a chariot-racing metaphor, and the *daēnā* is here portrayed as a victorious horse; he compares the use of root *van-* 'to win' in connection with plural *daēnå* in a *Yasna Haptaŋhāiti* passage:

Y 39.2
aṣ̌āunąm āat̰ urunō yazamaidē kudō.zātanąmcīt̰ narąmcā nāirinąmcā yaēšąm vaɣhīš daēnā̊ vanaiṇtī vā vǝ̄ṇghǝn vā vaonarǝ vā
"Die Seelen der Wahrhaften, wo auch immer sie geboren sein mögen, verehren wir nun, der Männer und Frauen, deren bessere Gesinnungen siegen oder siegen werden oder gesiegt haben." (Narten 1986:44)

However, this sentence does not clearly contain a horse metaphor: surely the better *daēnā̊* can be victorious without being horses, even though there are horse metaphors for people in the *Gāthās*? Moreover, in Y 12.9 why should the action of throwing off its harness 'after the race' (Skjærvø's description) indicate victory for this particular horse/*daēnā*? The losing horses might be expected to shed their harnesses after the race too!

6.0. In the next part of this paper an alternative proposal about the meaning of Av. *yaoxǝδra-* will be put forward, but the first step in the argument will be to reexamine the meaning of *niδāsnaiθiš-*.

6.1. Everywhere else in Avestan *snaiθiš-* is a weapon of the truthful human (*aṣ̌āuuan-*) or a divinity which is used in the struggle against evil, e.g.

Y 57.16
sraošǝm . . . yazamaide . . . yō vīspǝm ahūm astuuantǝm ǝrǝδβa snaiθiša nipāiti
"We worship Sraoša . . . who protects the whole corporeal world with his upraised weapon."

The most sacred Zoroastrian prayer, the Ahuna Vairya itself, is described as a *snaiθiš-* at Y 57.22. Hence it seems unlikely that the Mazdayasnian *daēnā* would be described as laying down this sort of weapon as this would be tantamount to abandoning the cosmic struggle against evil which is the duty of all followers of the good religion.

6.2. It appears that translators both ancient and modern may have selected the wrong meaning for the first element *niδā-*, even though IIr. **dhā-* 'put' prefixed by *ni-* must have literally meant 'set down, put down'. The compound verb *nidhā-* is plentifully attested in the *Ṛgveda*, but there appears to be only one case where a finite form means 'lay aside, renounce':

RV 1.171.1d
ní héḷo dhattá ví mucadhvam áśvān
"Put aside your anger! Unhitch your horses!" (Jamison and Brereton 2014:371)[5]

[5]The other RV context where Grassmann (1873:663) gave a possible sense 'niederhalten, ablegen' is RV 5.32.12cd *kíṃ te brahmā́ṇo gṛhate sákhāyo / yé tvāyā́ nidadhúḥ kā́mam indra* but it was translated by Geldner (1951:2.32) "Sollen deine Hohenpriester, die Freunde betteln, die auf dich, Indra, ihren Wunsch gesetzt haben?" and by Jamison and Brereton (2014:698) "Do the formulators, your comrades complain, who have deposited their desire with you, Indra?"

On the other hand there are scores of occurrences where finite forms are used in the sense 'deposit in/on' construed with a locative (all RV translations from Jamison and Brereton 2014), e.g.

RV 3.55.17b
só anyásmin ní dadāti rétaḥ
"He (the bull) deposits his seed in another (herd of cows)."

nidhā- is also frequent as a technical term for installing Agni as priest, e.g.

RV 5.4.3c
ní hótāram viśvavídam dadhidhve
"You have installed (Agni) as the Hotṛ knowing all things."

Also with the locative, e.g.

RV 1.148.1bc
hótāram . . . / ní yáṃ dadhur manuṣyā̀su vikṣú
"The Hotṛ . . . whom they installed . . . among the clans of the sons of Manu."

In addition there are some examples of *ni-dhā-* followed by the dative meaning 'grant, bestow', e.g.

RV 5.41.15a
padé-pade me jarimā́ ní dhāyi
"Step by step old age has been secured for me."

RV 7.70.4cd
purū́ṇi rátnā dádhatau ny asmé / ánu pū́rvāṇi cakhyathur yugā́ni
"While granting many treasures to us you two have kept in view the ancient generations."[6]

6.3. Exactly the same range of meanings and constructions are found in Avestan, except finite forms of the compound verb never mean 'lay aside, renounce'; just as in the *Ṛgveda* they regularly have the sense 'deposit, install' + locative, e.g.

Y 45.8
at̰ hōi vahmǝ̄ṇg dǝmānē garō nidāmā
"And for him let us deposit praises in the House of Song"

Vd. 6.44
kuua narąm iristanąm tanūm barāma . . . kuua nidaθāma?
"Where shall we carry the body of dead men . . . where shall we deposit it?"

[6]Occasionally also the meaning 'hide', which is more frequent for the ppp. *níhita-*, e.g. RV 2.13.6c *sá śevadhíṃ ní dadhiṣe vivásvati* "You have hidden a treasure in Vivasvant [= the sun]."

But there are also YAv. passages where *niδā-* is construed with the dative and it means 'grant, bestow', e.g.

> Yt. 14.38
> *tərəsantu . . . aməmca vərəθraγnəmca niδātəm tanuiie* ⁺*mana*
> "Let them tremble at the strength and victory granted to myself" (literally 'to my body')

6.4. Thus a sense 'bestowing weapons' or 'granting weapons' appears more likely for *niδā-snaiθiš-*. In other words, the Mazdayasnian *daēnā* arms the faithful for the struggle against evil. If *niδā-snaiθiš-* means 'bestowing weapons', this formally parallel qualifier in no way supports a translation 'throwing off the harness' for *fraspā-yaoxəδra-*.

7.1. Yet Bartholomae's convincing formal comparison of once-occurring Av. *yaoxəδra-* with Ved. *yóktra-* need not be abandoned, since the Vedic texts attest a rarer sense for the latter, which so far appears to have escaped the notice of Iranian scholars. In Vedic ritual the word *yóktra-* is a term for a cord of woven *muñja*-grass, which is tied around the waist of the *yajamāna-*'s wife, or around the waist of a bride at her wedding.

The passages relating to this ritual practice have been collected and discussed by Stephanie Jamison in her book, *Sacrificed Wife/Sacrificer's Wife* (Jamison 1996:42–50). For instance, *yóktra-* in its ritual sense occurs in *Āpastamba Śrauta Sūtra* 10.9.13 (*dīkṣā* of the *Agniṣṭoma*):

> *śaramayī mauñjī vā mekhalā trivṛt pṛthvy anyataratahpāśā tayā yajamānaṃ dīkṣayati yoktreṇa patnīm*
> "A *mekhalā* made of reed or *muñja*-grass, threefold, wide, with a noose at either end; with that he (the priest) consecrates the sacrificer; with a *yoktra* (he consecrates) the wife."

On the basis of this and other passages, Jamison argues that the wife's *yoktra-*, which she wears for the duration of the *iṣṭi-* or more complex ritual such as the New and Full Moon sacrifices, provides the woman with a temporary *upanayana-* and qualifies her to participate in the *Śrauta* rites alongside her husband.[7] There are in fact many

[7] There is an explicit statement to this effect at TB 3.3.3.2 *etád vái pátniyai vratopanáyanam* "This (girding) is the initiation of the vow for the wife." The issue Scharfe (1999:105 n.45) takes with both Jamison (1996:267 n. 39) and H.-P. Schmidt (1987:25) appears to be whether the wife's girdle should be equated with the *mekhalā-* or *upavīta-*, not whether it represents a temporary *upanayana-*. On the other hand, an interpretation of the *patnī*'s ritual *yoktra-* as the 'noose of Varuṇa' and a symbol of the woman's restricted status in Vedic ritual was put forward by F. M. Smith (1991). But see the counter-arguments of Jamison (1996:43–7), which can be supported by the evidence of other contexts where mantras containing *varuṇapāśa-* refer to an auspicious cord, e.g. TS 4.2.1.1 employs RV 1.24.15ab *úd uttamáṃ varuṇa pā́śam asmád / ávādhamáṃ ví madhyamáṃ śrathāya* for the release of the *yajamana* from the cord which links him to the *ukhā*-pot containing the fire in the *dīkṣā* of the *Agnicayana*.

more references to this 'girdle' than a mere word-count of the occurrences of *yóktra-* reveal. Often its use must be deduced from a form of the compound verb *saṃ-nah-*, the regular term for fastening on the girdle, or from the noun *saṃnahana-*, which is derived from this verb, e.g. *Atharvaveda Śaunaka Saṃhitā* 14.1.42 (wedding hymn, verse addressed to the bride):

> *ā́śāsānā saumanasaṃ prajā́ṃ puṣṭiṃ saubhā́gyaṃ rayím patyur anuvratā bhūtvā saṃnahyasvāmṛ́tāya kam*
> "Hoping for possession of good thoughts, offspring, prosperity, good fortune, wealth, having become avowed to your husband, gird yourself for immortality."

Compare *Āpastamba Gṛhya Sūtra* 2.5.12 (instructions for the bridegroom):

> *pariṣecanāntaṃ kṛtvottarābhyāṃ yoktraṃ vimucya tāṃ tataḥ pra vā vāhayet pra vā hārayet*
> "Having performed (the marriage rites) ending with the sprinkling (of water), and having untied the *yoktra* with (recitation of the) two next (verses), he should then either convey her forth in a vehicle (to his house) or bring her (to his house in some other way)."

If such passages are linked together, it becomes apparent that the wife's/bride's ritual *yóktra-* can be traced back in time at least as far as the *Atharvaveda* and *Yajurveda Saṃhitās*.

7.2. Therefore on the basis of this ritual meaning shown by the Vedic descendant of IIr. **yaúktra-*, it may be suggested that Av. *yaoxəδra-* also meant 'ritual girdle' and that this noun is an archaism in Avestan, preserved only in a once-attested compound of inherited structure.

8. In an Avestan context, particularly in a context such as the Zoroastrian confession of faith, the 'ritual girdle' in question must be the Zoroastrian *kustī*, or its prototype at a very early stage in the development of the religion. Another Avestan noun, *aiβiiå̊ŋhana-* n., has traditionally been identified as a word for the Zoroastrian *kustī* girdle (Bartholomae 1904:98; cf. Darmesteter 1892–3:2.243 n. 13, Modi 1922:173). But this can be explained as a neologism[8] derived from the compound verb *aiβi-yāh-* 'to gird on',[9] typologically comparable to Vedic *saṃnahana-* from *saṃ-nah-* 'to tie

[8] *aiβiiå̊ŋhana-* can also refer to a cord encircling other sorts of objects: at its earliest Avestan occurrence (Y 9.26) it is the band around the ritual Haoma stalks, and its Middle Persian cognate *aiwyāhan* is the date-palm cord which fastens together the sacred barsom twigs (Kotwal and Boyd 1991:74; cf. Scharfe 1999:109–10).

[9] The lemma *yāh-* n. 'Gürtel, Gürtelschnur' found in Bartholomae (1904:1291) can be left out of account as Schindler (1972:71) and Kellens (1974:193–5) both suggested independently that at Yt. 18.14 *auui.yāh-* should be read. Later editors vary in interpreting this *hapax legomenon* as either a noun or an adjective. However that may be, like *aiβiiå̊ŋhana-*, it clearly represents an inner-Avestan creation based on the regular verb 'to gird on', *aiβi-yāh-*.

together', which is employed in some Vedic passages (e.g. *Āpastamba Śrauta Sūtra* 9.2.1) instead of *yóktra-*. MP *kustīg* is also a new coinage (with no known Old Iranian antecedents and no clear etymology), and it appears that it was only with the creation of this word that the term for the initiate's girdle became fixed in Zoroastrian texts.[10]

9. If *yaoxəδra-* means 'ritual girdle', how should the first element *fraspā-* of *fraspā-yaoxəδra-* be explained? Surely the *daēnā-* cannot be portrayed as throwing off her ritual girdle? Just possibly, there could be a reference to the untying of the *kustī* girdle while the prayers are recited. According to present-day Parsi practice, the ends of the untied *kustī* are flicked forward, a gesture which is explained as protecting against evil during the time when the adherent of the religion is without the protection that his or her girdle normally affords (Modi 1922:179; Boyce 1979:33). If this was part of the ancient practice, it might conceivably be described by the first element *fraspā-* 'throwing forth'. On the other hand, a linguistic explanation probably provides a better solution. Avestan contains evidence for two homophonous verbs with the form *fraspā-*, which, however, are distinguished by their morphology.[11] As noted above, Avestan *fraspā-* 'to throw forth' has a present stem *fraspaiia-* (cf. *spaiieiti*, *apa.spaiiat̰*, etc.), e.g.

> Yt. 10.43
> *pascaēta dīš fraspaiieiti miθrō yō vouru.gaoiiaoitiš*
> "Then Mithra of the wide pastures throws them (the enemies) forth"

On the other hand, a reduplicated present middle stem *fra . . . sispa-* occurs in three *Yašt* passages but it means 'display, wear' (Humbach and Ichaporia 1998:142 'parade, show up'), e.g.

> Yt. 5.127
> *fra gaošāuuara sīspəmna caθru.karana zaranaēni minum barat̰ huuāzātā arəduuī sūra anāhita*
> "Noble Ardvī Sūrā Anāhitā wore a necklace, displaying four-cornered golden earrings"

> Yt. 17.10
> *aēšąm vantåŋhō . . . åŋhənte . . . frā gaošāuuara sīspəmna caθru.karana minuca zaraniiō.pisi . . .*
> "Their wives . . . sit . . . displaying four-cornered earrings and gold-adorned necklaces . . ."[12]

[10] Scharfe (1999:112 n.74) speculates that *kustīg* was the name introduced for the woven woollen girdle with 72 threads, symbolising the 72 chapters of the *Yasna*, which differed from the old girdle made of reed like the Indian *mekhalā*.

[11] From a diachronic point of view there may be a single root *spā-* 'move, throw' < Proto-Ir. **su̯aH-* (Cheung 2007:369–70), but the two different present stems are clearly differentiated in meaning in Avestan.

[12] Yt. 5.7 *fra srīra zuša sispata* . . . which contains a finite form from this present stem occurs in a sentence with several textual problems, and the meaning of the whole sentence is disputed.

Beside the present *fraspaiia-* 'throw forth' there is an *s*-aorist (Kellens 1995:65). Hence the stem *fraspā-* which forms the first element of *fraspāiiaoxəδra-* may represent the aorist that corresponds to the present *fra-sispa-* 'display'. If so, *fraspāiiaoxəδra-* must mean 'displaying/wearing the ritual girdle'.

10.1. Some striking parallel details in the ritual employment of the *kustī* girdle and the Vedic *patnī*'s girdle may be noted:

(i) The *kustī* is received by Zoroastrians at an initiation ceremony (Parsi *navjote*, Irani *Sedra Pushun/Sedreh Pushi*) which qualifies them to participate in ritual. Jamison (1996:48–50) has shown in detail how the Vedic *patnī*'s *yóktra* symbolizes an initiation which allows her to take part in *Śrauta* ritual.

(ii) The *kustī* is tied around the waist, under the clothes but over the *sudreh* (the cotton sacred vest, also received at *navjote*). The *patnī*'s girdle is tied beneath her upper garment but outside of her lower one (*Āpastamba Śrauta Sūtra* 2.5.4–5).

(iii) The three loops of the *kustī* are said to represent 'goods thoughts, good words, good deeds'. The *mantras* associated with tying the *yóktra-* link it with two similar concepts: *Taittirīya Saṃhitā* 1.1.10e, cf. *Kāṭhaka Saṃhitā* 1.10, etc. (New and Full Moon Sacrifices, verse spoken by the sacrificer's wife; AVŚ 14.1.42, addressed to the bride, is a variant):

> *āśāsānā saumanasaṃ prajāṃ puṣṭiṃ saubhāgyaṃ tanūm agner anuvratā bhūtvā saṃnahye sukr̥tāya kam*
> "Hoping for possession of good thoughts, offspring, prosperity, good fortune, having become avowed to Agni, I gird myself for good action."

10.2. The Zoroastrian *kustī* has frequently been compared to the *upavīta* or *yajñopavīta* of twice-born Hindu males. However, Scharfe has argued (1999; 2002:105–11) that the correct comparison is with the *mekhalā*, bestowed on the *brahmacārin* and worn by the *yajamāna* during rituals. Both the *kustī* and the *mekhalā* are knotted around the waist and Scharfe believes that the ceremony of investiture may have originated as a rite marking puberty in both the Iranian and Indian traditions. He also takes the view that the girdle was originally the prerogative of male initiates in both India and Iran, but the arguments on the Iranian side appear quite weak. It is true that the Avestan passages where *aiβi-yāh-* 'to gird on' or *aiβiiåŋhana-* 'girdle' occur refer to adolescent males, but Scharfe does not set these passages in context;[13] nor does he consider the background of the history of Zoroastrianism where the *kustī* is traditionally worn by women as well as men, or the many passages of the Avesta which show equality between men and women.[14]

[13] For instance, Yt. 8.14 is about one of the metamorphoses of the male *yazata* Tištrya, and naturally when he assumes human form he becomes a young man.

[14] For instance, OAv. *huxšaθrastū nə̄ nā vā nāirī vā xšaētā* "Would that a good ruler, either a man or a woman, might rule over us" (*Yasna Haptaŋhāiti* 41.2); *yaθā āt̰ utā nā vā nāirī vā vaēdā haiθīm aθā hat̰*

10.3. One might reconstruct a more complicated diachronic scenario for 'the sacred girdle' on the basis of correspondences between the function of the Vedic *patnī*'s *yóktra* and the Zoroastrian *kustī* such as those outlined above in §10.1. At a prehistoric Indo-Iranian date a ritual girdle that was tied around the waist was called a **yaúktra-*, literally 'instrument of yoking'. In Iranian this word survives only in the archaic Avestan compound *fraspāiiaoxəδra-*[15] but elsewhere in Avestan it was replaced by *aiβiiåŋhana-*[16] and later by MP *kustīg*. In India the inherited term **yaúktra-* was replaced by *mekhalā* for brahmin males, but *yóktra* survived as a term for the temporary girdle of females on the occasions when they played a part in ritual. From a linguistic point of view the limited survival of the IIr. term **yaúktra-* would be a classic case of an archaic word preserved only in composition in Avestan, and in a secondary function in Vedic, while in both languages new terms took its place in the primary function (or what in India became the primary function as the result of the development of Vedic ritualism centred on the male *yajamāna*).

This reconstruction is proposed tentatively, but if the arguments put forward in this paper which build on Jamison's work are accepted, it is possible to conclude that there is linguistic evidence for a prehistoric connection between the ritual girdles of India and Iran: the equation Ved. *yóktra-* : Av. *-yaoxəδra-* points to an IIr. term **yaúktra-* that was continued in the language of both groups of peoples.[17]

11. As far as the Avesta is concerned, Y 12.9 describes the Mazdayasnian Religion by a series of defining characteristics which differentiate it from other religions "that are or shall be." One of these is the wearing of a ritual girdle. If this short "profession of faith" contains not only a reference to "good thoughts, good words, and good deeds"

vohū "And just as a man or a woman knows what is true, so (he/she knows) what is really good" (*Yasna Haptaŋhāiti* 35.6); *aṣ̌āunąm frauuaṣ̌īš narąmcā nāirinąmcā yazamaidē* "we worship the *fravaṣ̌is* of the righteous, both of men and of women" (*Yasna Haptaŋhāiti* 37.3), which is repeated in a YAv. variant at Y 26.7, *Vr.* 16.2, Yt. 13.143–5; YAv. *dazdi.mē vaŋᵛhi səuuište druuāspe taṯ āiiaptəm yaθa azəm hācaiiene vaŋᵛhīm āzātąm hutaosąm . . . yā.mē daēnąm māzdaiiasnīm zrasca dāṯ apica aotāṯ yā.mē vərəzānāi vaŋᵛhīm dāṯ frasastīm* "Grant to me, good very strong Druvāspā, that boon so that I may inspire good noble Hutaoshā who shall have faith in my vision which is Mazda-worshipping and shall understand it, who shall give good fame to my community" (Yt. 9.26, Zarathushtra speaking about the wife of his patron).

[15]The fact that *fraspāiiaoxəδra-* in its one occurrence qualifies *daēnā-*, which is a feminine noun, and may, according to Kellens (2007:138) and Skjærvø (2011:31), be personified as 'the Maiden at the Cinvant Bridge', might be taken, in conjunction with the Vedic *patnī*'s *yóktra*, to point to a separate IIr. term for a woman's girdle. But as this is the only context in which Av. *yaoxəδra-* is attested the evidence is not sufficient to draw such a conclusion.

[16]And *auui.yāh-*, if this is a noun rather than an adjective at Yt. 8.14 (see n. 9).

[17]Yet another term for the Vedic *patnī*'s girdle, *rā́snā-*, which occurs at e.g. ŚB 1.3.1.14, has been explained as a replacement of **yā́snā-*, cognate with Gk. ζώνη, as a result of blending with *raśanā́-* and *raśmí-* (Scharfe 1999:105, 111, with reference to Wackernagel). But in contrast to the connection between Ved. *rā́snā-* (**yā́snā-*) and Av. *aiβiiåŋhana-*, which involves different nominal stems derived from the same IE root, the comparison proposed here between Ved. *yóktra-* and Av. *-yaoxəδra-* is more exact, and makes it possible to reconstruct a single lexeme **yaúktra-* 'ritual girdle' for prehistoric Indo-Iranian.

(in Y 12.8), but also a reference to the Zoroastrian girdle itself, this can help to explain why Y 12.8–9 was incorporated in the *kustī* prayers.

The whole of *Yasna* 12 is in Younger Avestan language (with a few superficial "pseudo–Old Avestan" features), but it has long been recognized that this more extensive *fravarānē* includes Old Avestan elements, e.g. *ahurāi mazdāi vīspā vohū cinahmī* "I attribute all good things to Ahura Mazdā." It is clear that the *kustī* prayers have been expanded at various dates, not least because they are in both Avestan and Middle Persian; but because of the linguistic archaism of *fraspāiiaoxəδra-* and *niδāsnaiθiš-*, it might even be suggested that Y 12.8–9 continues the original kernel of the *kustī* prayers.

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Iranian *Anāhitā*- and Greek Artemis: Three Significant Coincidences*

ANA VEGAS SANSALVADOR

1 Introduction

The Iranian deity *Anāhitā*- (adapted in Greek as Ἀναῖτις, Ἀναῖτις) shares certain relevant features with different Greek goddesses. In fact, the Greeks associated Ἀναῖτις with Aphrodite and Athena[1] on the strength of a series of common peculiarities: *Anāhitā*-, like Aphrodite, is a fertility goddess and, like Athena, she is a virgin, whereas her role as a midwife brings her close to Eileithyia and Hera.[2] It is, however, Artemis with whom she shows the most striking similarities, since both divinities are depicted as maidens, spirits of moist places, promoters of fertility and helpers in childbirth. The assimilation of the Iranian goddess to Artemis was common in Cilicia and Lydia.[3]

The most characteristic features of *Anāhitā*- are outlined in *Yašt* 5 (*Ardvīsūr Yašt*, or *Ābān Yašt* "Hymn to the Waters"),[4] dedicated to the goddess, which has been accurately edited and annotated by Oettinger (1983), and which remains the main source for any research about her profile. The goddess bears the triple name *Arəduuī-Sūrā- Anāhitā*- exclusively in *Yašt* 5, while other sources offer two variants of her name,

*I would like to thank Velizar Sadovski (Vienna) and José Luis García Ramón (Cologne) for stimulating suggestions from which this paper greatly benefited. Final responsibility of course remains my own. We follow Oettinger's translation of *Yašt* 5. Only the name of the goddess, translated by Oettinger, remains untranslated in our version.

[1] Ἀναῖτις is associated with Aphrodite Οὐρανία by Herodotus (1.131), although the historian mistakes Μίτρα for Ἀναῖτις, and by Berosus (*apud* Clem. Al. *Protr.* 5.65.3). The Iranian goddess was also associated with Athena (Plut. *Art.* 3.1).

[2] *Anāhitā*- has beautiful white arms (*Yt.* 5.7d *srīra vā aŋhən bāzauua // auruša*), just like Hera λευκώλενος (*Il.*).

[3] Str. 12.2.7; Paus. 3.16.8. In fact, Ἄρτεμις Ἀναῖτις was worshiped in Lydia (Paus. 3.16.8), in Cappadocia (Str. 11.8.4) and Armenia (Str. 11.14.16; 12.3.37).

[4] The redaction of *Yašt* 5 dates to the time of Artaxerxes II, who spread *Anāhitā*-'s cult throughout the Achaemenid Empire. In fact, Artaxerxes II broke the long-established tradition among the Achaemenid kings, who invoked only Ahuramazda in their inscriptions, by also calling on Mithra and *Anāhitā*-. See Windischmann 1856:88–104; Boyce 1975–82:216–27.

namely YAv. *Arəduuī- ap-* 'Arəduuī-river', and OP *Anāhitā-*.[5] The Greek form Ἀναῖτις[6] seems to be the adaptation of early Middle Iranian **Anăhit*.

The present paper will focus on three features shared by the deities *Anāhitā-* and Artemis, namely their function as helpers in childbirth (§2), their connection with rivers and marshy grounds (§3), and their being "unbound," i.e. virgins (§4). Taking into account these aspects of Greek Artemis as a whole—which, in my opinion, have not yet received the attention they deserve—will shed light on the personality of Iranian *Anāhitā-* and reveal that the similarities are even more precise than currently believed.

2 Upright position and help in childbirth

Artemis and the Iranian goddess are described as "upright, straight." It is irrelevant for our purpose whether this feature is understood literally or metaphorically as "behaving correctly." Upright posture is connected with the midwife and κουροτρόφος role performed by both goddesses.

2.1. The Iranian *Arəduuī- Sūrā- Anāhitā-* is depicted as a girdled, upright maiden:

> Yt. 5.64 a–d
> *upa tacaṯ arəduuī sūra anāhita // kainīnō kəhrpa srīraiiå // ašamaiiå huraoδaiiå // uskāṯ yāstaiiå ərəzuuaiθiiō*
> "herbei lief *Arəduuī- Sūrā- Anāhitā-* in Gestalt eines schönen Mädchens, das tüchtig, gut gewachsen, hoch gegürtet und aufrecht ist."

According to this description, the goddess is girdled to keep her body upright (gen. *yāstaiiå ərəzuuaiθiiō*). YAv. fem. *ərəzuuaiθī-* 'upright' (*-*u̯n̥t-i̯h₂*-) matches the meaning of Gk. Ὀρθίας (§2.2). Another feature of the goddess, probably the most characteristic one, and certainly connected with her standing upright, is that she makes childbirth easier:

> Yt. 5.2c
> *yā vīspå hāirišīš // huzāmitō daδāiti*
> "welche alle Frauen leicht gebärend macht"

> Yt. 5.87d–e
> *θβąm carāitiš zizanāitiš // jaiδiiåṇte huzāmīm*
> "dich werden die gebärenden jungen Frauen um gute Geburt bitten."

The features of *Arəduuī- Sūrā- Anāhitā-* just referred to find a close parallel in the figure of Artemis, especially of Ἄρτεμις Ὀρθία.

[5]The two Old Persian variants of the goddess's name are ***a-na-ha-i-ta** /ānahitā-/* A² Sd 3f. (with *-i-* like Elam. ***an-na-ḫi-ud-da*** and Akk. ***a-na-aḫ-i-tu'***) and ***a-na-ha-ta** /anāhᵃta-/* A² Sa 4f.; A² Ha 5, 6. Cf. also Arm. *Anahit* and ModP. *Nahīd* 'Morning Star, Venus'.

[6]Str. 11.8.4; 14.16; 12.3.37; Plu. *Art.* 3; Clem. *Protr.* 5.65.3.

2.2. In the famous sanctuary of Artemis near Sparta, the goddess was worshiped as Ὀρθία 'the upright'. The dedications found at the site offer numerous variants of the epithet:[7] with and without initial digamma, and with different spellings of the final syllables, written ⟨- ασια⟩, ⟨-αια⟩, ⟨-εια⟩, ⟨-ια⟩, ⟨-εα⟩, which may conceal two different forms or simply reflect the coexistence of dialect (in part archaizing), ***koiná***, and ***koiné***. The oldest dedications show the form Ϝορθασία 'promoter of fertility' (a derivative of **u̯orthā-*) and variants (without a mention of Artemis). These forms are cognate with Ved. ***várdhate*** 'grows', ***várdhati*** 'makes grow', Av. ***varədaiti*** 'makes stronger'[8] and may be interpreted as 'promoter of growth', referring to the fertility character of the goddess.

Lac. Ὀρθία, first attested in a votive die dated to the 7th century BC[9] and occurring frequently as an epithet of Artemis in later inscriptions, is a derivative of ὀρθός 'upright' (Ved. *ūrdhvá-*, Av. *arəduua-*, Lat. *arduus* 'steep')[10] and means 'the upright (goddess)'. Ὀρθία, Ὀρθεία and variants have merged (formally and semantically) with the outcome of Ϝορθασία, which had become unintelligible because of its isolation in Greek. The fluctuation of digamma in Laconian inscriptions and the occurrence of variants like Ϝορθεία are part of this replacement process.[11] Otherwise the assumption that Artemis was upright is reflected in the popular belief, reported by Pausanias, that the image of Ὀρθία was standing upright when found:

> Paus. 3.16.11
> *καλοῦσι δὲ οὐκ Ὀρθίαν μόνον ἀλλὰ καὶ Λυγοδέσμαν τὴν αὐτήν, ὅτι ἐν θάμνῳ λύγων εὑρέθη, περιειληθεῖσα δὲ ἡ λύγος ἐποίησε τὸ ἄγαλμα ὀρθόν*
> "They call it not only Ὀρθία, but also Λυγοδέσμα ('having a willow as binding'), because it was found in a thicket of willows, and the encircling willow made the image stand upright."

This description recalls the literary picture of *Anāhitā-* being girdled (***uskāṯ yāstaiiå*** 'high girdled' *Yt.* 5.64) with a belt to keep her body upright. A third formal variant Ὀρθωσία[12] (: ὀρθόω 'set upright, restore to health') fits into the pattern of the Greek popular belief that Artemis restored women to health after childbirth and was

[7]Cf. Dawkins 1929. In the sanctuary, the *epheboi* celebrated initiation rites, which included cheese stealing, fleeing, and being whipped (διαμαστίγωσις) when caught. See X. *Resp. Lac.* 2.9; Plu. *Lyc.* 18, *Inst. lac.* 239c; Paus.3.16.7–11. These rites point to the child-rearing profile of Artemis, cf. some epithets of the goddess such as κουροτρόφος (*Orph. hym.* 36.8; Diod. 5.735) or παιδοτρόφος (in Messenia, cf. Paus. 4.34.6).

[8]Whether these forms are to be traced back to **(H)u̯erdʰ-* or **u̯erHdʰ-* 'grow' is irrelevant.

[9]*SEG* XXVIII 409. For further details, see Kilian 1978:219–22.

[10]Cf. Bader 1980:37–61. The absence of *u̯-* in Vedic and Avestan, as well as in Latin and in Gk. ὀρθός, may be due to dissimilation in **u̯r̥Hdʰ-u̯o-*. Initial *u̯-* is preserved in Myc. *wo-ti-jo /worthios/* (a man's name, Ruijgh 1967:158 n. 317), Cret. Βόρθιος, Arg. Βορθαγόρας and in the Elean gloss βορσόν· σταυρόν (Hsch.).

[11]For a survey of the variants, their chronology, and their interpretation, see Vegas Sansalvador 1996:275–88.

[12]Cf. Hdt. 4.87.2 (Ὀρθωσίη); Pi. *O.* 3.30, schol. *ad loc.* 54a–b; Lyc. 1331; Hsch. Ὀρθωσία· ἐπώνυμον Ἀρτέμιδος.

therefore called Ὀρθωσία, cf. sch. 54d Pi. *O.* 3.30 *ἤτοι τῇ ὀρθούσῃ τὰς γυναῖκας καὶ εἰς σωτηρίαν ἐκ τῶν τοκετῶν ἀγούσῃ ⟨Ὀρθωσίᾳ⟩ τῇ Ἀρτέμιδι.*

The image of the goddess helping in childbirth is widely reflected in literary testimonies (E. *Hipp.* 165; Pl. *Tht.* 194b; Call. 3.21) as well as in the epithets *Λοχ(ε)ία* 'midwife' (E. *IT* 1097, *Supp.* 958),[13] *Εὐλοχία* 'who grants a good birth' (Gonnoi, Thessaly),[14] *Ὠκυλοχεία* 'who grants a quick birth' (*Orph. hym.* 36.8) and *Εἰλείθυια* (Nonn. 41.414),[15] identical with the name of the goddess of childbirth. Moreover, Artemis was called *Ἰφιγένεια* 'strong-born' in the sanctuary of Brauron, where the clothes of the women who had died in childbirth were dedicated to the goddess:

> E. *IT* 1464–7
> (Ἰφιγένεια) *οὗ καὶ τεθάψῃ κατθανοῦσα, καὶ πέπλων*
> *ἄγαλμά σοι θήσουσιν εὐπένους ὑφάς,*
> *ἃς ἂν γυναῖκες ἐν τόκοις ψυχορραγεῖς*
> *λίπωσ' ἐν οἴκοις*
> "You (Iphigenia) will die there and be buried and they will dedicate to you adornment, finely woven robes which the women who have died in childbirth leave in their homes."

Agamemnon's daughter *Ἰφιγένεια* was a priestess of Artemis and seems to be a hypostasis of her, as suggested by the gloss *Ἰφιγένεια· ἡ Ἄρτεμις* (Hsch.) and by the use of her name as an epiclesis of the goddess: *καὶ Ἀρτέμιδος ἐπίκλησιν Ἰφιγενείας ἐστὶν ἱερόν* (Paus. 2.35.1).

3 Connection with the waters

There is a striking point of comparison between Artemis and *Arəduuī- Sūrā- Anāhitā-* in their respective associations with waters. In the case of the Iranian goddess, this feature is clear, since she is the personification of a river; and the same applies to Artemis as a goddess of the waters, who also has the profile of a river deity. Some concrete points deserve to be stressed.

3.1. The Avestan *Arəduuī- Sūrā- Anāhitā-* appears in *Yašt* 5 as a river goddess, irrespective of her origin, either heavenly or earthly, or both:[16]

[13] Cf. also *IG* II² 4547; *IG* IX 2.141 (Schwyzer 1923:no. 551); *IG* IX 2.142; Helly 1973:II.174. There is also an Ionian variant *Λοχείη*, cf. *Orph. hym.* 36.3, and *Λοχίη*, cf. *IG* VI 960.10.

[14] Helly 1973:II.173.

[15] Cf. *Orph. hym.* 2.12. *Εἰλείθυια* as an epithet of Artemis is also attested in Thebes, Orchomenus, Thespiae, Chaeronea, and other Boeotian cities (Schachter 1981:94, 98, 101–6).

[16] Attempts to identify this river with the main river (Oxus or Araxates) in the region called Av. *Harax*ᵛ*aitī* (OP *Harahuvatī*, Bartholomae 1904:1788) and known to the Greeks as *Ἀραχωσία*, have not come to any definitive conclusion. A survey of the much-debated question can be found in Oettinger 1983:371–5.

> Yt. 5.3a–d
> *masitąm dūrāt̰.frasrūtąm // yā asti auuauuaiti masō // yaθa vīspå imå āpō //*
> *yå zəmā paiti fratacinti*
> "die ausgedehnte weithin berühmte, die von ebensolcher Länge ist wie alle diese Wasser hier (zusammen), die über die Erde dahin vorwärtslaufen"

Arəduuī- may reflect her aquatic character: it is usually interpreted as 'moist'[17] and connected with Ved. *ard ~ r̥d-* 'scatter, disperse, shake' (cf. Ved. *árdati* 'start moving'[18]: PIE **Herd-*[19]). For the semantic shift from 'start moving' to 'flow', cf. Ved. *riṇā́ti* 'sets in violent motion, whirls', Gk. *ὀρῑ́νω* 'whirl' as against Ved. *rī́yate* 'flows', Russ. *rínut'* 'stream, flow' (**h₃rei̯H-*).[20] Alternatively, *arəduuī-* is interpreted by Oettinger (1983:348) as the feminine of an unattested Iran. **ardu-* from PIIr. **ardu-* 'scattered' (Ved. *ar ~ r̥*) or from PIIr. **ardhu-* 'prosperous' (Ved. *ardh ~ r̥dh*).

The close semantic similarity between the name of the Iranian *Arəduuī-* and that of the Indian water goddess *Sárasvatī-* 'having pools' led Lommel (1954:405–11) to assume the common origin of both deities and, consequently, the existence of an Iranian counterpart of *Sárasvatī-*, which should be identified with *Arəduuī- Sūrā- Anāhitā-*. According to this suggestion, all three names of the goddess attested in *Yašt* 5 are attributes, whereas her genuine name was **Harahu̯atī*, which disappeared, eclipsed by its epithets. But the interpretation of the goddess's name *Arəduuī-* as belonging to PIIr. **Hr̥dʰ-* 'thrive, promote' (cf. Av. *arədat̰* 'he must promote', YAv. *ərədβan-* 'who promotes') cannot be definitively ruled out. In fact, a name meaning 'the promoter' could fit the life-giving aspect of the goddess.[21]

3.2. As a goddess of the wild, Artemis is related to fountains, rivers, marshes, and waters in general. Most of her sanctuaries were located at springs[22] or near rivers[23] or on marshy grounds. Like the Iranian *Arəduuī- Sūrā- Anāhitā-* and the Indian *Sárasvatī-*, Artemis is a river goddess as shown by some of her epithets: *Ἀλφειαία* (cf. *Ἀλφειός*, river of Olympia)[24] or *Ποταμία* (*Ὀρτυγίαν ... ποταμίας ἕδος Ἀρτέμιδος*, Pi. *P.* 2.7). Furthermore, Artemis protects and controls the marshes (*δέσποιν' ἁλίας Ἄρτεμι λίμνας*, E. *Hipp.* 228) and harbors, being thus called *Λιμενοσκόπος* (Call. 3.259). She also appears helping sailors by securing fair winds and a safe trip, as described in the myth of Iphigenia's sacrifice (E. *IA* 88–93; 1596–7).

[17] Bartholomae 1904:194–5; Reichelt 1911:100.

[18] Ved. *árdati* 'ins Schwanken geraten', cf. Gotō 1987:102–4.

[19] Cf. Gotō 1987:102: "Die genaue Bedeutung der Wz. *ard/r̥d-* ist schwierig zu bestimmen."

[20] Cf. *LIV*² *s.v.* **h₃rei̯H-*. Ved. *r̥dū́-* 'humidity' has been adduced as evidence for the semantic shift from 'fly away, vanish' to 'be wet' (Johansson 1893:27–8), but its meaning remains uncertain (Oettinger 1983:349).

[21] Oettinger 1983:350 ("die förderliche"); Skjærvø 2006:xxiii ("rich in life-giving strength").

[22] For instance, in Corinth (Paus. 2.3.5), Mothone (Paus. 4.35.8), Aulis (Paus. 9.19.6), and in the Laconian towns of Dereion, Marios, and Teuthrone (Paus. 3.20.7; 3.22.8; 3.25.4).

[23] The sanctuary of Artemis *Τρικλαρία* in Patrae was built by a river named *Ἀμείλιχος* 'relentless' because of the human sacrifices which took place there in honor of the goddess (Paus. 7.19.4).

[24] Paus. 6.22.10. Cf. also the variants *Ἀλφειούσῃ* and *Ἀλφειονία* (Str. 8.3.12); *Ἀλφειώα* (sch. Pi. *N.* 1.3). See Covini forthcoming:1–5, 7–11.

Especially interesting for our purpose are two epithets of the goddess that are derivatives of λίμνη 'marsh'[25] (cf. λιμήν 'harbor', secondarily 'square',[26] λειμών 'moist place, meadow') and ἕλος 'id.'. The goddess bears the surname Λιμνᾶτις '(Artemis) of the marshes' in different Laconian places, namely Epidaurus Limera (Paus. 3.23.10), Boeae (*IG* V1.952), a village at the Messenian border (Paus. 4.4.2), and Sparta (*IG* VI 225, 226), but also in Patrae (Paus. 8.20.8), Tegea (Paus. 8.53.11), and Troizen (sch. Eur. *Hipp.* 1133).[27] The variant Λιμναία is attested in Sparta (Paus. 3.14.2)[28] and Sicyon (Paus. 2.7.6). Moreover, according to Pausanias (3.16.7), the sanctuary of Artemis Orthia was located in Λίμναι (cf. λίμνᾱ 'pool, lake'), a marshy place near Sparta.

The epithet of Artemis in Messenia, Ἑλεία 'marshy' (Hsch.)[29] (_*seles-i̯o/ā-_, cf. YV *sarasyà-*), associates the goddess with marshy ground, which is a common toponymic motif (cf. PN Myc. *e-re-i* /^{h}*Ele*^{h}*i*/, also Ἕλος in Laconia).[30] Cf. the divine name Ved. *Sárasvatī-* and the Iranian place-name YAv. *haraxᵛaitī-*, OP /*harahuvati-*/ (: Ἀραχωσία), on which see §3.1.

On the strength of the facts quoted above, Artemis has a clear connection with waters and marshes, sharing this character with the water deity *Arəduuī- Sūrā- Anāhitā-*. Moreover, the epithet Ἑλεία of Artemis matches semantically the putative Iranian theonym _*Harahu̯atī-_, who may lie behind the water goddess of *Yašt* 5.

4 Virginity: an unbound goddess

4.1. The most characteristic name of the Iranian goddess, *Anāhitā-*, has been interpreted either as 'stainless, immaculate'[31] or as 'unattached'.[32] In fact, both meanings are not too distant from each other, and may be reduced to one, on the assumption that purity is connected with (or is the result of) absence of contact.

It is generally accepted that *Anāhitā-* is a compound with privative *an*°, but the interpretation of YAv. *āhita-* (actually attested in *Vd.* 16.16) remains controversial. The assumption that YAv. *āhita-* would match Ved. *ásita-* 'dark-colored, black' and mean 'stained', whence *an-āhita-* 'not stained, stainless',[33] is problematic: the length of the first vowel in YAv. *āhita-* as against Ved. *ásita-* is unexpected,[34] and the reconstruction of an adjective _*āhi-_ (< _*h$_2$n̥-si-_ or _*h$_2$m̥-si-_, cf. Gk. ἄσις 'slime, mud', Hitt. *ḫanzana-* 'black')[35] on which *āhita-* would be based, is not compatible with the existence of the abstract noun *āhiti-* 'staining, pollution', which points to a verbal stem (*ā-hi-*), not to an adjective.[36]

An alternative explanation for the theonym *anāhitā-* as 'not bound', i.e. as a privative compound _*an-āhita-_, as proposed by Hertel (1927:20), seems fairly convincing: the second member °*āhita-* (itself a compound *ā-hita-* 'bound', with *ā*°)[37] conceals PIr._*hitā-_, fem. of Av. *hita-* 'team (of animals), yoke' : Ved. *sitá-* (PIE _*sh$_2$i-to-_ or _*sh$_2$-to-_),[38] the verbal adjective of PIE _*sh$_2$e(i̯)-_ 'bind, attach', cf. Ved. pres. *sinā́ti* 'binds', perf. *ā́ siṣāya* : OAv. *ā-hišāiiā* 'keeps bound' (_*se-sh$_2$ói̯-_),[39] Hitt. 3pl. *išḫiyanzi* 'bind' beside HLuv. *ḫišḫiyanti*.[40] On the assumption that YAv. fem. *Anāhitā-* means 'unbound', the meanings 'virgin' and 'stainless' may both be understood as the result of a semantic shift from the original meaning.

YAv. *Anāhitā-* has in fact a remarkable *comparandum* (except for the preverb *ā*°) in Mycenaean Greek, namely the privative adjective *a-na-i-ta*, *a-na-ta* /*an-aitā-*/ 'not inlaid' (Knossos), which is itself the result of a semantic specialization of the Greek reflex of PIE _*sh$_2$ei̯-_ or _*seh$_2$i-_ *'bind, attach, fix'. Its phonetic outcome, PGk. _*hai̯-_,[41] survives only in Mycenaean, probably as /*ai-*/ (with psilosis),[42] a *terminus technicus* of decoration with the specific sense 'inlay' (as a specialization of *'attach'),[43] which

[25] Gk. λίμνη is probably related to Ved. *nimná-* 'hollow, lowland'. See Forssman 1964:15–6, who explains the Greek form as the outcome of a dissimilation.

[26] The secondary meaning of λιμήν as 'square' (= Att. ἀγορά) in Thessaly (Θετταλοὶ δὲ τὸν λιμένα ἀγορὰν καλοῦσιν, Hsch.; see Helly 1993:II.176–7; García Ramón 1997:531–2; 2007:40–1 n. 176) and in Cyprus (λιμήν· ἀγορὰ καὶ ἐνδιατριβή. Πάφιοι, Hsch.) may also be assumed for Sparta, since Λίμναι is the name of a Spartan square (Paus. 3.2.6; Str. 8.5.1). The synonymy of λιμήν and λίμνη with Att. ἀγορά may be explained under the assumption that meetings originally took place in an area close to meadows or to harbors (Gschnitzer 1985:123). At any rate, the Laconian places mentioned above seem to keep the original meaning 'marshy place'.

[27] The ethnic Λιμνάτᾱς is also attested, cf. Paus. 3.16.9.

[28] In fact, Pausanias states that Λιμναία is an epithet of Artemis Ἰσσωρία and does not identify the goddess with Artemis but with Britomartis, the Cretan goddess of nature.

[29] Str. 8.3.25. Also attested in Cos (Schwyzer 1923:no. 251 B5). The epithet is referred to Hera in Cyprus (Hsch. *s.v.*), with psilosis, cf. Egetmeyer 2010:182, 262. Likewise, let us not forget Apollo Ἑλείτας at Tamassos in Cyprus (dat. *e-le-i-ta-i*, cf. Masson 1983:224–5, Egetmeyer 1992:32; 2010:282–3), Demeter ἐν ἕλει in Arcadia (Paus. 8.36.6), and Aphrodite ἐν ἕλει in Samos (Athen. 13.572).

[30] Cf. Thuc. 4.54.4; Xen. *Hell.* 6.5.32; Plb. 5.19.7; Str. 8.5.2; Paus. 3.22.3.

[31] Bartholomae 1904:125; Reichelt 1911:100.

[32] So "die ungebundene" (Oettinger 1983:365–6); "the unattached lofty one" (Skjærvø 2006:xxiii).

[33] On the connection of YAv. *āhita-* with Ved. *ásita-*, cf. Kuiper 1939:37.

[34] The long *ā-* could be caused by the general tendency within Avestan to lengthen the antepenultimate syllable, cf. YAv. *pārəṇdi-* 'prosperity' as against OAv. *parəṇdi-* 'id.' : Ved. *púrandhi-*. For references see Oettinger 1983:354–6; Hoffmann and Forssman 1996:56–7.

[35] All three forms, Ved. *ásita-* 'dark, black', Gr. ἄσις 'mud, rubbish', and Hitt. *ḫanzana-* 'black' were first connected by Čop (1970:95–6). Hitt. *ḫanz(a)na-* has been derived from PAn. _*Hm̥s(o)no-_. Cf. Oettinger 1987:191; Melchert 1994:121.

[36] Oettinger 1983:360.

[37] The synchronic antonym to Ved. °*sitá-*, Av. °*hita-* is actually Ved. *vi-sitá-* 'unbound' : YAv., OP *vīšta*.

[38] PIE _*sh$_2$ei̯-_ 'bind, attach' may be unrelated to PIIr. _*sā-_, cf. Ved. *sā-*, *syáti* and Av. *hā*, which belong to _*seh$_1$(i)-_ 'let loose', cf. *LIV*² *s.v.* _*sh$_2$ei̯-_.

[39] Kümmel 2000:675–6.

[40] The Luvian forms go back to the reduplicated form _*h$_2$i-sh$_2$i-_ with dissimilation of the initial laryngeal in Hittite, cf. Melchert 1984:99–100. Anyway, Hitt. *išḫi̯a-* may be traced back to _*sh$_2$-i̯o/e-_ and match Ved. *syá-*.

[41] Cf. also the Greek zero-grade forms ἱμάς 'leather strap', ἱμάσθλη '(thong of a) whip'. For the whole dossier, see García Ramón 1994–5:340.

[42] Cretan psilosis, which is well attested in the first millennium, may also be assumed for Mycenaean Knossos (García Ramón 1994–5:341, 345–6).

[43] García Ramón 1994–5:336. Also cf. *LIV*² *s.v.* _*sh$_2$ei̯-_. The semantic shift from 'bind, attach' to 'inlay' finds parallels in some possible uses of °δετός 'bound/attached' and 'inlaid'. Cf. Ved. *ā́-sā* ~ *say* 'put in' beside *áti-sā* ~ *say* 'fix, unite', as well as Hitt. *išḫiia-*^{hhi}, which usually means 'bind' but in some passages seems to mean 'impose'.

disappeared in post-Mycenaean times. Myc. */ai-/* (or */*hai-/*) is also attested in perf. ptc. *a-ja-me-no/ā- /ai-ăi(s)meno/ā-/* 'inlaid, overlaid', beside the agent noun *a_3-te /aitēr/* 'inlay worker' (both in Knossos and Pylos).

An-āhitā- seems thus to reflect the virginal character of the goddess *Arəduuī- Sūrā- Anāhitā-*: she is called 'unbound' in the sense of 'not attached' (to someone as partner) and, more precisely, as 'unwedded, unyoked'. The metaphoric use of 'bound' as 'partner' is attested in OAv. *hiθa-* 'partner (of truth)' and *hiθu-* 'id.'[44] (nom. *hiθāuš*), cf. Y.34.10b *spəṇtąmcā ārmaitīm dąmīm vīduuå hiθąm aṣ̌ahiiā* "... and prosperous right-mindedness, knowing (it), the creative partner (acc. *hiθąm*) of truth," Y.48.7c *aṣ̌ā viiąm yehiiā hiθāuš nā spəṇtō* "... let (him) whose partner is the prosperous man be protected by truth."

4.2. Virginity is one of the core aspects of Artemis. Recall the myths which depict the goddess as a zealous protector of chastity (Hippolytus [E. *Hipp.*], Callisto [Apollod. 3.8.2]), as a punisher of rapists (Actaeon [Apollod. 3.4.4], Orion [Apollod. 1.4.3], and Tityus [*Od.* 11.576–81; Pi. *P.* 4.90]),[45] and as a protector of maidens, who leads the choruses of young girls of marriageable age (*νύμφαι*).[46]

Artemis, who asked Zeus for an everlasting virginity (Call. 3.6-7), is called *παρθένος* (*h. Hom. Di.* 2; E. *Hipp.* 10–7; *IT* 1230: voc. *ἄνασσα παρθένε*), *παρθενίη* (Call. 3.110), *κούρη* (*Il.* 21.506),[47] and especially *ἀπειρολεχής* 'without experience in bed, unwedded' (Ar. *Th.* 118; Porph. *de phil. orac.* 151.5[48]), which is the basis of *ἀπειρογάμος* (of Athena in Nonn. 47.416). The image of an unattached, unwedded Artemis reappears in the interpretation Eustathius gives to the epithet Ταυροπόλος:

> Eust. *Comm. Il.*1.395–7
> *καὶ ὅτι ταυροπόλος* Ἄρτεμις, *οὐ μόνον ἀπὸ τοῦ ἔθνους, ἀλλὰ καὶ ἀπὸ τοῦ ζῴου, ἐξ οὗ καὶ ταυρηδὸν ἐμβλέπειν τὸ θυμικῶς ἐντρανίζειν καὶ ἀταυρώτη γυνή, ἡ ἄζυξ.*
> "And Artemis is *ταυροπόλος* not only because of the people but also because of the animal, whence to look like a bull, i.e. to look irascibly and the unwedded maiden, the unyoked."

According to Eustathius, the epithet, apart from pointing to the connection of Artemis with the Tauric people, reflects two characteristic features, namely her fierce glance (*ταυρηδὸν ἐμβλέπειν*) and her virginity (*ἀταυρώτη γυνή*). In another passage, the expression *ἀταυρώτη γυνή* is glossed as *ἄζυξ καὶ παρθένος* (*Comm. Od.* 1.242.12). In fact,

[44] *Aliter* Bartholomae 1904:1813 'Verband, Genossenschaft'.

[45] Some rapes, however, did take place in Artemis' sanctuaries, like the violation of Spartan maidens by Messenian men in the sanctuary of Artemis Limnatis (Paus. 4.4.2).

[46] Most of the festivals took place in Laconia (at Limnai [Artemis Limnatis], Sparta [Artemis Orthia], or Karyai [Artemis Karyatis]). See Wide 1893:97–133. For details on Artemis maiden choruses, see Calame 2001:142–70.

[47] E. *IA* 1521, *Hipp.* 63–4, *Tr.* 554; Ar. *Th.* 115–6.: all testimonies belong to choral passages.

[48] The epithet mentioned by Porphyry (= Eus. *Praep. ev.* 4.23.7) is actually applied to Phoebe, a well-known hypostasis of the goddess. In fact, the epithets she bears in the passage, *ταυρῶπις* and *χρυσοβέλεμνος*, are characteristic of Artemis.

ἄζυξ 'unyoked' (Archil.+) is often attested as a synonym for 'virgin' (E. *Tr.* 536; Ar. *Th.* 1139; Iambl. 71.5) and as an epithet of Athena, who is herself a virgin.[49] The semantic association, easily conceivable, is explicitly illustrated by Ar. *Th.* 1139 *Παλλάδα ... παρθένον ἄζυγα κούρην* and E. *Ba.* 694 *νέαι παλαιαὶ παρθένοι τ' ἔτ' ἄζυγες*. Artemis' characteristic state of being 'unbound and 'unattached' matches the distinctive feature of the Iranian goddess expressed by YAv. *an-ā-hitā-* perfectly.

5 Conclusion

Av. *Anāhitā-* and Greek Artemis have three peculiarities in common, which speak for a match between the deities. First, they stand upright (YAv. *ərəzuuaiθiia-*, Gk. *Ὀρθία* and variants) and have the function of a midwife and *κουροτρόφος*, i.e. they make the children upright and strong. Second, they are associated with the waters and represented as ladies of the marshes: Av. *Anāhitā-* seems to match Ved. *Sárasvatī-*, and the same applies to Artemis *Ἑλεία*. Thirdly, they are both 'unbound', i.e. 'virginal', as shown by the name of the Iranian goddess (*an-ā-hitā-* 'unbound'), which finds a close formal parallel in Myc. fem. *a-na-i-ta*, *a-na-ta /an-aitā-/* (**/an-haitā-/*) 'not inlaid' (*'unbound'). Both verbal adjectives match each other perfectly, the only difference being the preverbal *ā°* in Avestan, while the semantic divergence results from different developments of the original sense 'unbound' in the two traditions. Whether these coincidences are inherited and point to an Indo-European deity, as Calvert Watkins has suggested for Hermes and *Pūṣan-*,[50] or are the result of the contact between Iranians and Greeks, remains beyond the scope of the present contribution.

Abbreviations

*LIV*² = Kümmel, Martin, and Helmut Rix, eds. 2001. *Lexikon der indogermanischen Verben: Die Wurzeln und ihre Primärstammbildung.* 2nd ed. Wiesbaden: Reichert.

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[49] In the case of Artemis the epithet may also reflect the wild character of the goddess who is called *ἀγροτέρα/-η* (*Il.*+).

[50] Watkins 1970:345–50.

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Vedic *ketú-* 'brightness' Revisited: Some Additional Considerations[*]

AURELIJUS VIJŪNAS

1. In the present article, I will return to the history of the Vedic noun *ketú-* 'brightness' (vel sim.).[1] This noun has already been discussed many times in different contexts; however, the existing historical interpretations of *ketú-* and its cognates in the other Indo-European languages (Go. *haidus* 'manner, way', OE *hād* 'person; rank, degree', etc.) are not entirely satisfactory.[2] In the following sections, I will discuss the recent scholarship on this subject, along with some of the the remaining problems, and consider alternative ways to reconstruct the ancestral form of this problematic noun. Due to space constraints, I limit my discussion to Indic matters.

2. One fairly recent and detailed discussion of the history of the noun *ketú-* may be found in Schaffner 2001:507. In his historical analysis of Go. *haidus* 'manner, way', Schaffner proposed that this noun, along with its other Germanic cognates and Ved. *ketú-*, reflect a hysterokinetic *tu*-stem **koi̯-téu̯-*, built to the verbal root **kei̯-* 'perceive' (loc. cit.).

Such a reconstruction was later criticized by S. Neri in his own analysis of the history of Go. *haidus* (Neri 2003:216–21). Neri observed that Schaffner's root **kei̯-* should rather be reconstructed as *k^w*ei̯-*, and that this would pose serious problems for the Germanic reflexes of the proposed *u*-stem.[3] In addition to this, Neri also pointed out that historical *tu*-stems normally follow the proterokinetic accentual pattern, and,

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[1] This noun has been translated in many different ways, due to lack of an exact equivalent in the European languages; thus, in different translations of the Rigveda, *ketú-* has been translated as 'banner/flag/ensign', 'symbol', 'sign', 'messenger', 'herald', 'director', 'light', 'torch', 'illuminator', 'beacon' etc. (examples collected from Wilson 1866, Geldner 1951–7, Griffith 1963, Elizarenkova 1999, Jamison and Brereton 2014).

[2] For the most recent studies, see Schaffner 2001 and Neri 2003. For earlier, much briefer, discussions, see Renou 1958:15–7, Lubotsky 1988:44, *EWAia* 1.399 (with further references), *IEW* 916.

[3] A labiovelar is indicated by Greek τίω 'pay honor' (< *k^w*i-*), etc. (*LIV*[2] 377–8). The delabialization of labiovelars before a historical **o* in Germanic, referred to by Schaffner (loc. cit.), is too sporadic to be considered regular. Examples like Gmc. **halsa-* 'neck' (< *k^w*olso-*) or **kalba-* 'calf' (< *g^w*olbho-*) are outnumbered

most importantly, the derivation of *ketú-* from the root *k^w*ei̯-* would dissociate it from such forms as *citrá-* 'visible, clear', Av. *ciθra-* 'shiny', etc., which reflect the root **kei̯t-* 'be shiny, bright'.[4] Instead, Neri suggested that Go. *haidus*, Ved. *ketú-* et al. reflect an earlier "acrostatic Ib" *u*-stem **kói̯t-u-/*kit-éu̯-* (2003:220; accepted in *EWAhd* 4:914).

For the clarification of terminology, it must be noted here that Neri operated with more subtypes of the acrostatic pattern than many other scholars, some of these subtypes (like the "Ib" type) exhibiting mobile accent. According to Neri, this mobile accentuation was secondary, and commonly occurred among nouns built to *CeRC* roots (Neri 2003:23–5). Neri did not specify, however, whether the acrostatic "Ib" *u*-stem **kói̯t-u-/*kit-éu-* was a reformed earlier acrostat "Ia" **kói̯t-u-/*kéi̯t-u-*, or whether it was original.

3. Although it indeed appears more attractive to reconstruct the verbal root underlying *ketú-* as **kei̯t-*, Neri's acrostatic *u*-stem **kói̯t-u-/*kit-éu̯-*, which displays otherwise non-characteristic accent mobility and complex ablaut alternations, is difficult to accept on formal grounds. Generally speaking, there is not enough evidence for the reconstruction of the acrostatic "Ib" type for the protolanguage. Neri's other examples of this type, e.g. **nóḱ-u-/*n̥ḱ-éu̯-* 'death', **dór-u-/*dr-éu̯-* 'tree' (Neri 2003:83–9, 220, n. 680), were later explained as reflecting not a single "mobile acrostatic" pattern, but rather being a conflation of two types of accentual paradigms, the stems **nóḱ-u-*, **dór-u-*, etc. representing the strong stems of an original *ó/é*-acrostatic accentual type, and **n̥ḱ-éu̯-*, **dr-éu̯-*, etc. being the weak stems of the proterokinetic type. In other words, the relationship between these stems is not inflectional, but derivational.[5]

Further problems arise regarding the shape of this *u*-stem, as well as its putative development both within the protolanguage and in Indic. One of these problems is the development of the accentuation of this acrostatic "Ib" **kói̯t-u-/*kit-éu̯-*, especially if one is to assume that it reflects an even earlier *ó/é*-acrostat. Reflexes of original acrostats often retain barytone accentuation in Vedic, cf. *páti-* 'lord' (< **pót-i-*; instr. sg. *pátyā/pátinā*, dat. sg. *pátye*, loc. sg. *pátau*), *áhi-* 'snake' (< *h_1*óg*^{wh}*-i-*; instr. sg. *áhinā*, abl. sg. *áheḥ*, loc. sg. *áhau*), *krátu-* 'power' (< **krót-u-*; instr. sg. *krátvā/-unā*, dat. sg. *krátve*, gen. sg. *krátvaḥ*, loc. sg. *krátau*), *mánu-* 'man' (< **món-u-*; instr. sg. *mánunā*, dat. sg. *mánave*, gen. sg. *mánoḥ*, loc. sg. *mánau*),[6] etc. Notable deviations from this tendency are *dā́ru* 'tree' (< **dór-u*; cf. gen. sg. *drúṇas/dróḥ*, instr. sg. *drúṇā*)

by reflexes with a preserved labiovelar, cf. PGmc. **kwaljan-* 'torture' (> Old Icelandic *kvelja* 'torture', OE *cwellan* 'kill', etc.), **hwat* 'what' (< *k^w*od*), **hwal*° 'whale', **hwassa-* 'sharp' (< *k^w*od-to-*), **hwalb-* 'arch' (> OIce. *hvalf*, OE *hwealf* 'dome'), etc. (see also Kümmel 2000:179–80, Neri 2003:218–9, n. 676). The behavior of labiovelars before a historical **ŏ* in Proto-Germanic requires a more thorough investigation.

[4] Lubotsky 1988:44 has **(s)kei̯t-*.

[5] For a longer discussion of this derivational pattern and additional examples, see Widmer 2004:65–7, 96–7 and Friedman 2006.

[6] An oxytone variant is attested three times in the sequence *manā́v ádhi* (RV 8.72.2b, 9.63.8b, and 9.65.16b). It appears to reflect an anomalous **mo/en-éu* vel sim., and has not yet been explained in a satisfactory way.

and _sā́nu_ 'summit' (< _*sén-u-_; cf. Friedman 2006; abl. sg. _snóḥ_ along with _sā́noḥ_ and _sā́nunaḥ_), both of which reformed their ablaut in certain ways, but neither behaves exactly like _ketú-_ either ablaut- or accent-wise.

The noun _agní-_ 'fire', which is frequently reconstructed as an old _ó/é_-acrostat but exhibits shifted accent,[7] cannot be directly compared with the noun _ketú-_ and Neri's _*kói̯t-u-/*kit-éu̯-_. On the one hand, when compared to the rest of ancient acrostats, the accentuation of _agní-_ appears to be anomalous. On the other hand, exactly because of the oxytone accentuation, _agní-_ has been alternatively reconstructed as _*(h₁)n̥gʷní-_ (vel sim.).[8] Due to different problems, neither of the two reconstructions has been universally accepted, and the definitive analysis for this apparently ancient noun has yet to be offered.

4. Another problem is the provenance of the unusual ablaut _o_/∅, whether or not one is to derive it from earlier _ó/é_ ablaut (cf. Neri's discussion of ablaut reformations in §2 above). One cannot assume that the _o_/∅ was original, as it is otherwise unknown, but also deriving it from earlier _ó/é_ is problematic. As noted in Neri 2003:23–5, in many athematic formations built to _(C)eRC_ roots, the ablaut was reformed in such a way that the original full grade of the root was replaced by the zero grade. But this means that the putative _*kói̯t-u-/*kéi̯t-u-_ should have become _*kit-u-_. There exist, to be sure, many forms in which the full grade has been retained—and, interestingly, quite a few of these are _(C)u_-stems, e.g. _sétu-_ 'bridge' (_*seh₂i-_ 'bind'), _párśu-_ 'rib; sickle',[9] _reṇú-_ 'dust' (_*h₃rei̯H-_ 'flow'?; cf. _EWAia_ 3.459), _sótu-_ 'extraction of Soma' (_*seu̯H-_ 'press'), _mántu-_ 'adviser; advice' (_*men-_ 'think'), _tántu-_ 'thread' (_*ten-_ 'extend'), _rékṇu-_ 'empty' (_*lei̯kʷ-_ 'leave'); but, as can be easily seen, most of them exhibit radical accent (and possibly an earlier _e_-grade). Among these, only _reṇú-_ appears to exhibit some formal similarities to _ketú-_, but, aside from the mechanical reconstruction _*h₃re/oi̯H-nú-_, nothing else is known of its derivational history.

The noun _ketú-_, therefore, appears to be unlike other reflexes of ancient acrostatic formations, even if one assumes certain ablaut and accentual reformations, and it is improbable that it directly reflects an acrostat.

5. Nevertheless, the noun _ketú-_ must be fairly old, and go back to some stage of Proto-Indo-European. First, its formal similarities to the corresponding Germanic data are too great to be accidental. Second, if this noun had been formed directly from the verbal root _cit-_ within Sanskrit, one would expect that its initial consonant would be palatal, too. The velar _k_ indicates that the ancestor of _ketú-_ predates the monophthongization of _ai_ to _ē_. At the same time, the operation of Verner's law in the

[7] This noun was reconstructed as an old acrostat by Schindler (1975:4); cf. also _IEW_ 293, Meiser 1998:81, Vijūnas 2009:60, 64, Weiss 2011:196, 317.

[8] Other variants of this reconstruction include _*hₓn̥gʷni-_ in _EIEC_ 202, _*h₁n̥gʷni-_ in de Vaan 2008:297, _*(h₁)n̥g⁽ʷ⁾ni-_ in Smoczyński (2007:701); for a recent overview, see Mažiulis 2008.

[9] Further etymology unclear, cf. _EWAia_ 3.100–1.

ancestor of the Germanic forms implies that it was formed early enough to predate the shift of the ictus to the root-initial syllable.

Otherwise, though, the history of the ancestor of these forms is quite murky, both as far as the time and the way of its derivation are concerned. What is fairly clear is that this substantive was a _u_-stem of some sort, exhibited _o_-grade in the root and had non-radical accent in some part of—or even the entire—paradigm.

As such, this formation, which for now I would like to reconstruct mechanically as _*koi̯t-ú-_, cannot be squeezed into any canonical (or "Schindlerian") accent/ablaut type, or any type of derivation based on these commonly posited accent/ablaut types. As an illustration, one could consider deriving _*koi̯t-ú-_ as a "proterokinetic" adjective, cf. the common derivational pattern _*krótu-/*krétu-_ 'strength' (Ved. _krátu-_) → _*krétu-/*kr̥t-éu-_ 'strong' (Gk. _κρατύς_), _*u̯ói̯d-u-/*u̯éi̯d-u-_ 'knowledge' → _*u̯éi̯d-u-/*u̯id-éu̯-_, etc. (cf. Widmer 2004:96–8, Friedman 2006): if _*koi̯t-ú-_ had been built in this way, most likely one would expect zero-grade in the root (or, in any case, not the _o_-grade).

The history of Ved. _ketú-_ and its Germanic cognates must therefore be explained in some other way, using another derivational pattern. At least two such patterns can be imagined, although neither is entirely free of problems. They will be described in some detail in the following sections.

6. As was noted in Neri 2003:219 n. 676, the root _*kei̯t-_ 'shine' (or 'be shiny') participated in the so-called "Caland system", as is implied by a number of derivatives exhibiting the suffixes _-u-_ and _-ro-_ (there also existed an _s_-stem _*kéi̯t-es-_, cf. Ved. _cétas-_ 'splendor'). The _u_-stem _*koi̯t-ú-_ could then be one of these Caland derivatives, although not built directly from the verbal root _*kei̯t-_ (or its zero-grade version _*kit-_), but rather secondarily from thematic formations, which could exhibit _o_-grade in the root more easily. Such thematic substantives indeed existed, cf. Ved. _kéta-_ 'sign', which, although not attested in the Rigveda in this sense, must reflect an old _tómos_-formation _*kói̯t-o-_ 'sth. shiny' due to its velar _k_ in Anlaut. Another reflex of this _*kói̯t-o-_ is probably to be seen in OIc. _heið_ 'clear sky' (< PGmc. _*haiþa-_).[10] I also find it tempting to connect some Lithuanian data to PIE _*kói̯t-o-_, cf. Lith. _prã-kaitas_ 'sweat', _atókaita_, _at-kaità_ 'place under direct sunlight or before fire' (although there is no general agreement that these Lithuanian forms belong here etymologically).[11]

If the ancestor of Ved. _ketú-_ was formed relatively late, one could consider the

[10] Neri (2003:219) assumed that the ancestor of OIc. _heið_ was secondarily built in Proto-Germanic from the inherited adjective _*haida-_ (< _*koi̯t-ó-_ 'bright') via nominalization. While, from a purely Germanic/Icelandic point of view, the derivation is possible in either direction, cf. PIE _*koi̯t-ó-_ > PGmc. _*χaida-_ 'bright' → 'brightness' (> OIc. _heið_) or PIE _*kói̯t-o-_ 'brightness' > PGmc. _*χaiþa-_ → 'bright' (> OIc. _heiðr_ 'bright'), in this paper I will assume that the noun is older because of the Sanskrit (and possibly Lithuanian) parallel.

[11] In _IEW_ 519, the Lithuanian forms are derived from _*kai̯-_ 'heat' with a "_t_-enlargement", but I wonder whether all the material adduced in _IEW_ does not belong rather with the root _*kei̯t-_ 'shine, be shiny', especially if its consonant _t_ is interpreted in the same way as the _t_ of the root _*ḱu̯ei̯t-_ 'be shiny', where it must be an old "enlargement" of some sort (cf. PGmc. _*χwīta-_ 'white' < _*ḱu̯ei̯d-_ < _**ḱu̯ei̯-d-_; cf. _IEW_ 628–9, while only _*ḱu̯ei̯t-_ is posited in _LIV²_ 340).

possibility that it was built as a *u*-stem derivative from the noun *kói̯t-o-. This *u*-stem, however, would have probably had to be an adjective meaning 'shiny, possessing brilliance', and one would have to assume later nominalization.

The account forwarded here may appear quite complex, but nominalization of adjectives is otherwise a banal phenomenon, very well attested throughout the Indo-European language family, and it also occurs among various Caland adjectives, cf. Lith. *kaitrà* 'heat' ← *'heated, hot',[12] likewise PGmc. *χaidra- 'clear sky' (OE *hādor* 'clear sky') ← *χaidra- 'clear' (OE *hādor*, OHG *heitar* 'clear'; ultimately < PIE *koi̯t-ró-), PIE *u̯iH-ro- 'man' (< 'possessing power'), OIc. *hórr*, Go. *hōrs* 'lover, adulterer' (< PIE *keh$_2$-ro- 'loving/lovely').

7. Another, much more complex way to derive Ved. *ketú-*, Go. *haidus* etc. from a single ancestor is to reconstruct an earlier ablauting *u*-stem *koi̯t-éu̯-, with the weak stem *koi̯t-u̯-´. Although these two features do not occur in the canonical ablaut/accent patterns, they are nevertheless exhibited by a number of nominal formations, some of which are likely to be old. Among these, the most widely discussed forms are the *i*-stem *kou̯h$_1$-éi̯- 'seer' (vel sim.; > Old Avestan *kauuā*, Young Avestan *kauua* [nom. sg.; YAv. acc. sg. *kauuaēm*, gen. sg. *kauuōiš*],[13] Ved. *kaví-* 'seer', possibly also Gk. κό[ι]ης· ἱερεὺς Καβείρων [Hesych.] and Lyd. *kaveś* 'priest'),[14] and the *men*-stem *poh$_2$(-)i-mén- 'shepherd' (Gk. ποιμήν, Lith. *piemuõ*).[15]

This inflectional type has been interpreted as a subtype of the hysterokinetic pattern in some works, differing from the more typical hysterokinetic formations in that its unaccented root remains in the *o*-grade throughout the paradigm.[16] A number of things related to this type remain controversial, and while this type is altogether ignored in a lot of works,[17] some scholars have raised the question whether this type is not somehow secondary.[18]

Whether it is secondary or not, some of the examples adduced seem to be reasonably old and their reflexes are attested in more than one branch, while others look potentially old, although their history is quite unclear. Among the examples of this

[12] The base adjective *koi̯tro- was replaced in Lithuanian by a *u*-stem *kaitrùs*.

[13] The gen. sg. *kauuōiš* displays the usual Avestan gen. sg. *i*-stem ending *-ōiš*, which must derive from the original proterokinetic pattern, reflecting an earlier *-éi̯-s (cf. also Vedic gen. sg. *-éḥ/-eḥ*).

[14] There exists a lot of literature on this word now, spanning more than a century, cf. Saussure 1879:113, Masson 1950, Klingenschmitt 1992:114, 116, Melchert 1994:332, 367, et passim, Friedman 2006, Jamison 2007a, 2007b:162–4, Hawkins 2013:183–7.

[15] On the root, see *LIV*² 460. Schaffner (2001:89–91) has *poi̯h$_2$-mén-, via metathesis from *poh$_2$-i- 'defend'. In *EIEC* 268, *poh$_1$i̯mén- is reconstructed (to *poh$_1$i̯- 'watch after cattle'), but h_2 is indicated by Hittite *paḫ(ḫaš)š-* 'protect'. In Rix 1992:145, *pé$_2$i-mō(n) is reconstructed on p. 145 but *po$_2$i-mēn on p. 121.

[16] For a longer discussion of this type with many examples, see Schaffner 2001:88–91. This type is also discussed in some detail in Neri 2003:30–3.

[17] Rix 1992:123, Beekes 1995:176–83, Szemerényi 1996:161–2, Meier-Brügger 2010:349–53, Tichy 2000:73, Fortson 2010:120–1, Ringe 2006:45–6, Weiss 2011:258–9, among others.

[18] See Widmer 2004:62, Friedman 2006.

latter type, one may mention Old Church Slavic *korę* 'root' (< ?*kor-én-),[19] which may or may not be further related to Lith. *karnà* 'bast' (< ?*kor-mn- + -ā or a simple *kor-nā?) and perhaps Ved. *kanyā́* 'girl' (← ?*kon-i-h$_1$én-).[20] Other examples of this type are even less clear, but nevertheless worth mentioning, e.g. Lith. *pra-garmė̃* 'abyss', which derives from the root *gᵘerh$_2$- 'swallow', but since it exhibits the otherwise uncommon *o*-grade,[21] it may ultimately reflect PIE *gᵘorh$_2$-mḗn; further cf. *sakmė̃* 'tale, legend' (if < *sokᵘ-mén-),[22] *báimė* 'fear' (if < *bhoih$_2$-mén-), OCS *plamy/plamenь* 'flame' (← *pol-mén-; *IEW* 805), perhaps also Ved. *reṇú-* 'dust' (if < *h$_3$roi̯H-néu̯-), *maṇí-* 'necklace' (vel sim.; if < *mon-éi̯-),[23] etc.

Although some of the examples adduced above have already been discussed here and there, a detailed study of all the relevant data is still lacking. Among the things that need to be elucidated in these formations are the source of the non-ablauting *o*-grade in the root, the differences between this type and the regular hysterokinetic formations, and, if they are indeed secondary as argued by Widmer (2004:62), what formations they are based on.

Although, as can be seen from the discussion above, deriving *ketú-* from this non-canonical hysterokinetic formation entails a lot of problems as well, in the following sections I would like to consider how *ketú-* could have developed out of an earlier *koi̯t-éu̯-.

8. If Ved. *ketú-* indeed reflects an earlier *koi̯t-éu̯-/*koi̯t-u̯-´, this formation must have undergone a number of changes on the way to Vedic. Synchronically, *ketú-* displays regular inflectional features of derivative *u*-stems, cf. nom. sg. *ketúḥ*, acc. sg. *ketúm*, instr. sg. *ketúnā*, dat. sg. *ketáve*, etc., with most of the forms displaying the zero grade of the suffix, but, as is quite common, dative singular exhibiting *-av-* (< *-eu̯-). This inflection must have been adopted from other *u*-stems, since in an idealized hysterokinetic paradigm (leaving aside the *o*-grade of the root) the corresponding singular forms would have looked as follows: nom. *koi̯t-ḗu̯, acc. *koi̯t-éu̯-m, instr. *koi̯t-u̯-éh$_1$, dat. *koi̯t-u̯-éi̯, etc. As is apparent, the idealized paradigm does not contain a single case of a vocalic suffix *-u-* (except in some of the putative plural forms), whereas the suffix *-éu̯-*, needed for the Sanskrit dative, only appears in the accusative.

[19] Jasanoff 1983:140, Schaffner 2001:90, n. 105, Widmer 2004:66, Kroonen 2011:30.

[20] For a recent discussion, see Rau 2010:317, with further references. The vowel *i* is mysterious, but cf. *poh$_2$(-)i-mén- above (*peh$_2$- 'protect').

[21] The verb *garmė̃ti* 'fall, plunge' is clearly denominal; another example with *o*-grade is the isolated noun *garnỹs* 'heron'.

[22] One potential problem with this noun is that *LKŽ* cites the form *sekmė̃* as the older form (occurring in Daukša), but *sekmė* is either directly built to the verb *sèkti* 'tell a tale', or (much less probably) it is a reformed proterokinetic formation. The noun *sakmė*, however, is the "lectio difficilior", and it may potentially be further connected to Old Icelandic *sǫgn* 'story' and Old English *sægen* 'saying, story' (← *sagn- < ?*sag-mn- ← PIE *sokᵘ-mén-).

[23] Cf. *EWAia* 3.293–4, 308 (on the hapax instr. sg. *maṇā́* 'piece of jewelry' [?]), and further comparison with OIc. *men* 'necklace' (< PGmc. *manjō ← *mon-i̯-´), etc.

This awkward mismatch does not have to mean that *ketú-* cannot reflect an original hysterokinetic formation. One should recall that also the noun *kaví-* 'seer', along with at least some of the other forms introduced in §7 above, would have faced comparable ablaut problems, although it is generally agreed that at least *kaví-* reflects an archaic **kou̯h_1-éi̯-*. If *ketú-*, *kaví-* etc. indeed reflect hysterokinetic formations of some sort, their synchronic shape in Sanskrit should imply that major ablaut reformations must have taken place in the history of Indic, whereby the inherited ablaut alternations of original hystero- and amphikinetic *i/u*-stems were greatly reduced (although more traces can be observed in Avestan). The synchronic Vedic inflections of *i*- and *u*-stems for the most part display the endings which originally belonged to the acrostatic and proterokinetic types—which is not abnormal, since both types were more widespread in the protolanguage itself. The original hysterokinetic features of **kou̯h_1-éi̯-* or **koi̯t-éu̯-* would have been removed by analogical processes; however, the details of these developments have not yet been investigated either.

9. In considering the reconstruction of a hysterokinetic *u*-stem of any type one should also ask whether such an accent/ablaut type existed in the protolanguage in the first place.

Hysterokinetic *u*- and *tu*-stems have been mentioned in the scholarly literature on a number of occassions: see, e.g., Beekes 1973:238, 1985:94, Klingenschmitt 1992:114, 116, Schaffner 2001:507, and Neri 2003:104–5. However, much uncertainty enshrouds the examples adduced.

In his discussion of the history of the Greek *-τῡ*-formations, Beekes considered hysterokinetic *tu*-stems to be their possible ancestors, but only with reservations (op. cit.; this idea was later revived in Klingenschmitt, op. cit.). It must also be added here that Beekes used the term "hysterokinetic" in a very broad sense, cf. also his classification of such formations as Ved. *páśu-/paśú-* 'cattle' or *krátu-* 'strength' as "hysterokinetic" (1985:74–5, following earlier work by F. B. J. Kuiper).[24]

I am also not persuaded by Klingenschmitt's reconstruction of Lat. *plēbēs* and Gk. *πληθῦς* 'crowd' as an original hysterokinetic *u*-stem **pl̥$h_1$dh-éu̯* (1992:127), although at present, I am not entirely sure what sort of (necessarily secondary) formation they reflect. In any case, PIE **ēi̯*, **ei̯*, or **u* cannot regularly yield Greek ῡ, whereas some of the problems for Latin have been described by Neri (2003:110–11).[25]

Likewise, the two Tocharian forms, TA *plāc* and TB *plāce* 'speech', do not necessarily reflect the rather unusual hysterokinetic *tu*-stem **bhelH-tḗu̯* (Klingenschmitt, ibid.). In addition to the issues already pointed out in Neri 2003, such as the double *e*-grade, and, specifically, the presence of the *e*-grade in the root (Neri 2003:108–10), it may be added here that the lack of palatalization in the TB oblique plural form *plātäṃ* (vis-à-vis TA *plācäṃ*), believed to be the crucial evidence for the reconstruction of hysterokinesis (see Neri, ibid.), may ultimately reflect secondary, analogical alternations between palatal vs. non-palatal consonants, i.e., it may be a Tocharian innovation. Such consonant alternations are fairly common in Tocharian B, and, among other environments, they frequently occur in the nominative and oblique plural forms, cf. *āś(c)i/āśśi* ~ *āstäṃ* (nom. sg. *āśce* 'head'), *klokaś(c)i/klokaśśi* ~ *klokastäṃ* (nom. sg. *klokaśce* 'pore'),[26] further *käryorttañc* ~ *käryorttantäṃ* (nom. sg. *käryorttau* 'merchant'), *lāñc* ~ *lāntäṃ* (nom. sg. *walo* 'king'), *lyśi* ~ *lyakäṃ/lykaṃ* (nom. sg. *lyak* 'thief'), *läkṣi* ~ *laksäṃ* (nom. sg. *laks* 'fish'), etc. (examples from Krause and Thomas 1960).[27]

10. From this discussion, it turns out that inherited hysterokinetic *u*-stems are virtually non-existent. However, there exists at least one attractive example of an old hysterokinetic *u*-stem, viz. **di̯-éu̯-* '(personalized) sky' (> Gk. Ζεύς, Ved. *Dyáuḥ* etc.), recently investigated in detail by Rau (2010). By late common Indo-European times, this formation was probably perceived as a root noun **di̯eu̯-*, but, as was shown by Rau, it is possible to interpret it as an old (though secondary) derivative of an earlier root noun **dei̯-* 'day', and built in the "regular" hysterokinetic way, with the root in the zero grade, and characteristic ablaut alternations in the suffix and the endings.

Although Rau was puzzled by the seemingly exceptional hysterokinesis of this derivative (Rau 2010:316–7), his analysis effectively demonstrates that formations which cannot be easily fitted into well-established derivational patterns nevertheless existed, and that further research into various "murky" corners of the protolanguage is needed. If Ved. *ketú-* reflects an earlier **koi̯t-éu̯-*, this would be one additional (although not exactly comparable) example of such rare derivation. Formations of this type, which do not conform well to the canonical ablaut/accent and derivational patterns, may indicate that a number of different derivational patterns developed at different stages of the protolanguage itself, while in the course of time, through various analogical and phonological developments (e.g. the emergence of new lengthened grades following the loss of laryngeals), the "original" ("Schindlerian") ablaut/accent patterns and the entire inflectional/derivational system were slowly reformed. This part of the history of Proto-Indo-European morphology is yet to be understood.

Possibly, hysterokinetic *u*-stems were not very widespread at any stage of the protolanguage—although some putative reflexes of early hysterokinetic *u*-stems might have been obscured by later phonological or morphological changes. It may be noted here that analogical *i*-stems were not very widespread either, although they are at least better attested than hysterokinetic *u*-stems, cf. the Latin nouns of the *fidēs* 'faith' type, some of which reflect primary-looking hysterokinetic formations (**bhidh-éi̯-*, etc.); other, perhaps non-primary formations, exhibiting hysterokinetic features include the

[24] For an overview of Beekes's inflectional types, see Beekes 1995:174–6.

[25] Mutatis mutandis, the same applies to the putative hysterokinetic *tu*-stems as to the ancestors of the Greek *-τῡ*-formations.

[26] Synchronically, both nouns belong to the same inflectional class as *plāce*.

[27] Cf. a brief discussion of the analogical spread of palatalization in Tocharian in Ringe (1996:101–2).

previously mentioned **kou̯h_1-éi̯-* 'seer' (see §7 above), Hittite *udnē* 'land' (< **ud-n-éi̯-*; see Oettinger 2000:182–3), and others.

11. In this article, I have returned once again to the history of the Vedic noun *ketú-*, and proposed an alternative, although at this stage speculative, reconstruction of its Proto-Indo-European ancestor. To my mind, the earlier reconstructions of an original hysterokinetic *tu*-stem **koi̯-téu̯-/*koi̯-tu̯-´* or a 'mobile acrostatic' *u*-stem **kói̯t-u-/*kit-éu̯-* are not satisfactory, and I have proposed two alternative ways to interpret the history of this noun.

Although neither way appears to be entirely free of problems, what is clear now is that Ved. *ketú-* and its Germanic cognates reflect an inherited formation, a bizarre *u*-stem which possibly had a non-ablauting root in the *o*-grade and exhibited oxytonesis, **koi̯t-(e)ú-*. This formation cannot be easily fitted into the canonical ablaut/accent system or the well-known derivational patterns, but at the same time it is not entirely alone in the nominal system, standing side by side with other derivatives that exhibit non-canonical features, some clearly quite old. The derivational history of all such formations, as well as their place in the history of Indo-European derivational morphology, requires a more detailed investigation.

Abbreviations

EIEC = Mallory, J. P., and D. Q. Adams, eds. 1997. *Encyclopedia of Indo-European Culture*. London: Fitzroy Dearborn.

EWAhd = Lloyd, Albert L., and Rosemarie Lühr. 2009. *Etymologisches Wörterbuch des Althochdeutschen*. Vol. 4: gâba – hylare. Göttingen: Vandenhoeck & Ruprecht.

EWAia = Mayrhofer, Manfred. 1986–2001. *Etymologisches Wörterbuch des Altindoarischen*. Heidelberg: Winter.

IEW = Pokorny, Julius. 1959. *Indogermanisches etymologisches Wörterbuch*. Bern: Francke.

LIV[2] = Kümmel, Martin, and Helmut Rix, eds. 2001. *Lexikon der indogermanischen Verben*. 2nd ed. Wiesbaden: Reichert.

LKŽ = Naktinienė, Gertrūda, ed. 2008. *Lietuvių kalbos žodynas*. Electronic version. Vilnius: Lietuvių kalbos institutas. http://www.lkz.lt

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On the Vedic Denominative Type *putrīyánt-*

BRENT VINE

1 Introductory: PIE and Indo-Iranian denominatives

There are many problems that resist solution. But for some types of recalcitrant problems, we may be brought closer to a solution by the simple application of increased attention.[1] What I offer here, far from a definitive solution, is more in the nature of "house cleaning", by updating and problematizing a neglected topic in Vedic grammar, namely the denominative formation represented by the participial stem *putrīyánt-* 'desiring sons', evidently based on the thematic noun *putrá-* 'son'.

The entire issue of denominative formations has itself been something of a backwater in Indo-European linguistic research, at least until recently. But some recent studies testify to a renewed interest in denominative formations over the past decade or so, both in individual languages and branches and for Proto-Indo-European itself.[2] Indo-Iranian has also benefited in this way: witness important studies by Insler (1997) and Tucker (1988, 2004), and for Vedic Sanskrit in particular, Albino 1997.[3]

The formation of denominatives in Proto-Indo-European is clear and well-known: the nominal stem (of any type) is followed by the thematic suffix *-*i̯é/ó-*, with accent on the thematic vowel—thus the familiar formation of Ved. *pr̥tanāyá-* 'does battle, fights', based on the noun *pŕ̥tanā-* 'battle', and so on.[4] There are also secondary developments typically seen in the daughter languages: these include, most prominently, generalizations of a resegmented morpheme leading to new productive patterns, as in the productive denominatives in Gk. -*ίζω* (resegmented from *id*-stem denominatives in *-*id-i̯e/o-*) and Italic *-*āi̯e/o-* (resegmented from *eh*$_2$-stem denominatives in *-*eh*$_2$-*i̯e/o-*); and reaccentuation, especially based on the causative, as in Vedic thematic

[1] An earlier version of this material was presented at the 14th World Sanskrit Conference (September 2009; Kyoto, Japan), where I benefited from the comments of many colleagues, including Stephanie Jamison. I regret that I have been unable to develop the project in ways that she and others suggested; but at least this preliminary exercise gives me an opportunity to thank her for the inspiring scholarship and warm friendship that she has generously bestowed on so many of us in the profession.

[2] See e.g. Melchert 1997 (Anatolian), Martzloff 2006:688–92 and Vine 2012:556–64 (Italic), Barber 2013:294–376. (Greek); and for PIE itself, e.g. Alfieri 2008, Schaffner 2008.

[3] Non vidi; but note Albino 2013, directly related to the material at hand.

[4] For a handbook account, see Fortson 2010:99.

denominatives in *-áyati* with causative accent, e.g. *ártha-* 'goal' → *artháya-* 'seeks as goal', *mántra-* 'spell' → *mantráya-* 'recites spells', and a number of others.[5] Thus apart from such special developments, thematic denominatives in particular show the following pattern: the thematic stem, with the thematic vowel normally in its *e*-grade form, is followed by accented **-i̯é/ó-*, as in verbs of the type Gk. *κοσμέω* 'arrange' (cf. *κόσμος* 'order'), Arm. *gorcem* 'work, do' (cf. *gorc* 'work'), and Ved. *amitrayáti* 'be hostile' (cf. *amítra-* 'enemy').[6]

2 The problem of Ved. *putrīyánt-* etc.

The descriptive anomaly of the thematic denominatives in *-īyá-* (and also *-iyá-*) based on Indic *a*-stems (Indo-European *o*-stems) is therefore apparent, and remains unexplained: a denominative based on Ved. *putrá-* 'son' should have the form †*putrayá-* or (with lengthening) †*putrāyá-* (neither of which is attested), and not (as in the Rig-Veda) *putrīyá-* 'desiring sons'. The thematic denominative formation in *-īyá-* is duly noted in the handbooks,[7] but the treatments are superficial and little attention has been devoted to the problem otherwise. What can be said, to begin with, about the extent of the phenomenon? A judgment on this point is compromised by the existence of ambiguous forms. Thus according to Whitney and Macdonell, Ved. *taviṣīyá-* 'be strong' is a denominative of the type in question, based on the thematic adjective *taviṣá-* 'strong'; but already Grassmann (1872 s.v.) saw that *taviṣīyá-* might rather be based on the noun *táviṣī-* 'strength', in which case it would have nothing to do with the thematic type under consideration.[8] For unambiguous forms, however, there is even a question as to whether the pattern is restricted to thematic stems. Such a restriction is claimed by Renou, in his treatment of the Vedic material; yet (as we will see) there are post-Vedic *-īya-* denominatives based on consonant stems and feminine *ā*-stems. Further, Morgenroth (1977:165) has claimed that the formation is restricted to the active; yet some middle forms are attested. Finally for the formal side, how should we understand the alternation between *-īya-* and *-iya-*? Thus *putrīyá-* in the Saṃhitā text of the Rig-Veda contrasts with *putriyá-* in both the pada-text and the Atharva-Veda; and in the Rig-Veda, *ánniyant-* 'seeking food'—clearly a formation of this type (cf. *ánna-* 'food')—shows short /i/ even in the Saṃhitā text. Turning to semantics: what can be said about the meaning of these forms, especially the prominent appearance of a desiderative sense, as in *putrīyá-* itself? This issue has been discussed more generally in connection with other denominatives (see especially Tucker 1988 and Fortson 2003), and will concern us further below. Finally, for now: how should this formation be viewed from a historical/comparative perspective? There is no consensus on the matter, as readily seen from the hodgepodge of proposals cited in Thumb-Hauschild (1959:356) and occasionally found in other literature, to be reviewed below.

[5] See on these forms Jamison 1983:70 (*artháya-*), 86 (*mantráya-*), and *in extenso* Ch. IV (48–69) on a series of intransitive cases (*ṛtáya-* 'acts according to the truth', *kulāyáya-* 'nests', and a number of others).

[6] On *o*-stem denominatives in Anatolian, see Melchert 1997:134–7. I return later to the lengthening of the thematic vowel seen in some of the Indic material. Left aside here (apart from a brief mention) is the "truncation" type (without thematic vowel), the PIE status of which is unclear; see Tucker 2004:549–51 (differently Tremblay 2008:24–5) for Old Iranian, Schaffner 2008 and Barber 2013:297–9 for Greek.

[7] See e.g. Whitney 1889:389, Sütterlin 1906:553–60, Macdonell 1910:399, Brugmann 1916:225–6, Renou 1952:302 and 1961:§360, Thumb-Hauschild 1959:356; note also Pāṇ. 7.4.35.

[8] Favoring *táviṣī-* → *taviṣīyá-*: also Sütterlin 1906:554, Renou 1952:303, Burrow 1973:362, Schaffner 2008.

3 Survey of the *a*-stem data

It will be helpful to begin with a survey of the data, presented more systematically than one finds in the handbooks. Whitney (1889:389) observes that "Not fifty stems of this form are quotable," and this agrees, more or less, with Sütterlin's estimate (1906:558) that there are between 41 and 60 such forms.[9] But particular interest attaches to the fact that there are barely six or eight forms of this type in the Vedas and Brāhmaṇas, as follows:[10]

(1) a. (*adhvará-* →) RV *adhvarīyá-* 'perform the sacrifice': *adhvarīyási* 3×, *adhvarīyatā́m* 3×
  b. (*ánna-* →) RV *ánniya-* 'seek food'[11]: *ánniyate* 4.2.7a
  c. (*cáraṇa-* →) RV *caraṇīyá-* 'follow a course': *caraṇīyámānā* 3.61.3c
  d. (? *taviṣá-* →) RV *taviṣīyá-* 'be strong': *taviṣīyáse* 8.6.26a, *taviṣīyántas* 5.85.4d, *taviṣīyámāṇam* 2.30.8c
  e. (*putrá-* →) RV *putrīyá-* 'desire a son/sons': *putrīyántas* 7.96.4b; AV *putriyá-*: *putriyánti* AV-Ś 14.2.72b, *putriyantu* AV-P 18.14.2b
  f. (*māṃsá-* →) Br. + *māṃsīyá-* 'long for flesh': ŚB, GB, ĀpŚrS
  g. (? *rátha-* →) RV *rathīyá-* 'drive': *rathīyántī* 1.166.5d
  h. (*śapátha-* →) AV *śapathīyá-* 'utter a curse': *śapathīyaté* AV-Ś 2×, AV-P 2×

As already noted (§2), *taviṣīyá-* (1d) should probably be eliminated, and similar doubts apply to *rathīyá-* ((1g), cf. *rathī́-* 'driving; driver').

The Indian grammatical tradition cites a great many such forms;[12] the following provides a generous selection:

(2) a. (*áśana-* [ŚB+] →) *aśanīya-* 'be greedy for food'
  b. (*áśva-* [RV+] →) *aśvīya-* 'desire a horse'
  c. (*udaká-* [RV+] →) *udakīya-* 'wish for water'

[9] In fact, as Sütterlin notes, there are more *-īya-* forms of this type than *-īya-* denominatives based on *ī*-stems, for which he gives a count of between 27 and 34 tokens.

[10] Here and below, abbreviations of literary texts mainly follow those used by Monier-Williams.

[11] This is the traditional gloss; see, however, Albino 2013 on possible alternative conceptions of the meaning.

[12] See especially Pāṇ. 7.1.51, 7.4.33–6.

d. (*edaka-* [Mbh+] →) *upedakīya-* 'behave as a sheep towards'
e. (*oṃkāra-* [Manu+] →) *oṃkārīya-* 'utter/be the sacred syllable *om*'
f. (*odaná-* [RV+] →) *odanīya-* 'wish for boiled rice'
g. (*kurkurá-* [AV+] →) *kurkurīya-* 'behave like a dog'
h. (*kṣīrá-* [RV+] →) *kṣīrīya-* 'desire milk'
i. (*dráviṇa-* [RV+] → *draviṇīya-* 'desire goods'
j. (*dhána-* [RV+] →) *dhanīya-* 'desire wealth'
k. (*prāvāra-* [Mbh+] →) *prāvārīya-* 'use as a cloak' (Pāṇ. 3.1.10)
l. (*prāsāda-* [Sū+] →) *prāsādīya-* 'imagine oneself to be in a palace'
m. (*yóga-* [RV+] →) *yogīya-* 'treat as yoga'
n. (*lavaṇá-* [ŚBr+] →) *lavaṇīya-* 'desire salt'

For this material, the preponderance of vocabulary involving everyday concerns (food, animals, clothing, etc.) seems striking.

What is most interesting about the data from sūtra literature and from epic Sanskrit is that there is so little of it. For the sūtras, I have found only the single form (*ghaná-* 'bane, destroyer', also adj. 'solid, compact' [RV+] →) *ghanīya-* 'long for solid food' (ĀpDhS, KātyŚS schol.), where we may note again the reference to food. For the epics, the single form (*sajja-* 'prepared' [Mbh, Kāvya] →) *sajjīyate* 'prepare oneself' (Mbh), allegedly deadjectival, is widely cited in the handbooks as an example of this kind (so e.g. Whitney 1889:389 and Renou 1961:486). But apart from *ghanīya-* (directly above), and the possibility of (*taviṣá-* →) *taviṣīyá-* (1d), there are virtually no other cases of deadjectival denominatives in this category; and indeed Oberlies (2003:530) has provided an entirely different (and I think more credible) account of the form.[13]

In contrast, the type is well-represented in Classical Sanskrit, including Kāvya and other poetry, fable literature, romances, and treatises on topics such as poetics, medicine, and religion. A generous selection of this material includes the following:

(3) a. (*kairava-* [Mbh+], *koraka-* [R+] →) *kairavakorakīya-* 'resemble a lotus bud' (ŚārṅgP.)
b. (*kṣīroda-* [Mbh+] →) *kṣīrodīya-* 'behave like the ocean of milk' [Sāh.]
c. (*kṣétra-* [RV+] →) *kṣetrīya-* 'desire s.o.'s wife'[14] (Śāntiś.)
d. (*gehá-* [VS+] →) *gehīya-* 'take s.th. for a house' (VarYogay)
e. (*candrakānta-* 'moon-stone' [Suśr., Megh. etc.] →) *candrakāntīya-* 'be moonstone-like' (Śārṅgadhara)
f. (*citrá-* [RV+] →) *citrīya-* 'be surprised' (Hcar. etc.)
g. (*jñāna-* [ŚāṅkhŚS+] →) *jñānīya-* 'wish for knowledge' (Vop.)

[13] I.e., *sajja-* → denominative *sajjayati/-te* 'make s.th. ready' (Mbh, R), with causative *sajjayate* 'get ready' (Mbh) and its passives *sajjyate/sajjīyate* 'be made ready' (Mbh).

[14] Evidently based on the derived meaning ('fertile soil' →) 'fertile womb' or 'wife' (Epic etc.) of *kṣétra-* 'field'.

h. (*duḥkhá-* [ŚB+] →) *duḥkhīya-* 'feel pain' (Hit.)
i. (*mahānīla-* [Mhb+], *abhrá-* [RV+], *jāla-* [AV+] →) *mahānīlābhra-jālīya-* 'resemble a dense mass of black clouds' (Vās.)
j. (*mitrá-* [RV+] →) *mitrīya-* 'make s.o. a friend, treat as a friend' (Kāvya, also RV Anukr.)
k. (*śivá-* [RV+] →) *śivīya-* 'treat s.o. like Śiva' (Vop.)
l. (*śṛṅgāra-* [Kāvya] →) *śṛṅgārīya-* 'long for love' (Śāntiś.)
m. (*śaivāla-* [Mhb+] →) *śaivālīya-* 'resemble the ś. plant' (Vās.)
n. (*śvábhra-* [RV+] →) *śvabhrīya-* 'regard as a hole' (VarYogay)
o. (*saroja-* n. [Kāvya] →) *sarojīya-* 'be like a lotus' (Kāvya)
p. (*sahasrāyudha-* [Sāh., Kathās.] →) *sahasrāyudhīya-* 'resemble one who has 1,000 weapons' [Sāh., Kpr.]
q. (*suta-* [Manu+] →) *sutīya-* 'treat like a son' (Sāh.)
r. (*sthala-* [TS+] →) *sthalīya-* 'regard as dry land' (VarYogay)

Not surprisingly for Classical texts, the formation can readily be based on compounds, as in *kairavakorakīya-* 'resemble a lotus bud' (3a), from Śārṅgadhara's treatise on horticulture (a 13th-century production compiled from earlier sources). So also (3e), again from Śārṅgadhara, (3i) from Subandhu's *Vāsavadattā* (5th c. CE), and others. This feature reinforces the impression that, as Renou notes for the post-Vedic period (1961:§360), the formation achieved a degree of productivity, perhaps by a relatively early stage.

4 Preliminary descriptive remarks

It is this productivity that probably accounts for the rare examples—either late or from grammatical sources—based on consonant stems (4) and feminine *ā*-stems (5), including not only forms based on compounds, but even one (5c) based on a personal name:[15]

(4) a. (*kartár-* →) *kartrīya-* 'act as agent' (Vop.)
b. (*mātar-* →) *mātrīyati* 'treat as a mother' (VarYogay, Pāṇ.), mid. 'desire a mother' (Pāṇ.)
c. (*rājan-* →) *rājīya-* 'treats like a king'? (Pāṇ. 1.4.15)

(5) a. (*aśnītapibatā-* →) *aśnītapibatīya-* 'intend to invite to eat and drink' (Bhaṭṭ.)
b. (*khaṭvā-* →) *khaṭvīya-* 'treat as a bedstead' (Pat. etc.)
c. (*tilottamā-* →) *tilottamīya-* 'represent the Apsaras T.' (Bhām.)
d. (*priyā-* →) *priyīya-* 'think s.o. to be another's mistress' (HYog.)

[15] See Sütterlin 1906:558–60 on the secondary nature of this material.

But the claim (by Morgenroth, cited in §2) that the formation is restricted to the active appears to be mistaken. Even if we discount the forms belonging to *taviṣīyá-* (1d) as well as the epic form *sajjīyate* (§3 with n. 13), we still find other forms inflected as middles (*kairavakorakīyate* (3a), *citrīyate* (3f)), including RV *caraṇīyámānā* (1c). There is thus no problem with assuming the existence of old (or relatively old) middle forms of this type. Nevertheless, the fact that the Rig-Vedic form is a participle and not a finite form may be of some interest, as we will see later.

For the alternation between long and short /i/ (§2), the variation between the Saṃhitā text of the Rig-Veda and the pada-pātha is superficially similar to the variation seen with actual *i*-stem denominatives: thus Saṃhitā (*kaví-* 'seer' →) *kavīyá-* 'be wise', but pada-pātha *kaviyá-*, like Saṃhitā *adhvarīyá-* (1a), *putrīyá-* (1e), *rathīyá-* (1g) but pada-pātha *adhvariyá-*, *putriyá-*, *rathiyá-* (vs. invariable *caraṇīyá-* (1c), *taviṣīyá-* (1d)). But, as we have seen, even the Saṃhitā text of the Rig-Veda has a short vowel in *ánniya-* (1b); and for the Atharva-Vedic short-vowel forms *putriyá-* and also (*i*-stem-based) *janiyá-* 'seek a wife', corresponding to long-vowel forms in the Rig-Veda, Whitney (1905:767 *ad* AVŚ 14.2.72) commented that these denominatives "have a right to their short *i*," citing the explicit mention of this in the Atharva-Veda *prātiśākhya* (iii.18 = CA 3.1.18, Deshpande 1997:388). There is, then, a need to provide an explanation for such short-vowel *-iya-* forms in both the Rig-Veda and Atharva-Veda.[16]

For the semantics: Renou noted, for the Vedic material, a "légère insistance du sens 'désidératif'" (1952:302). But this does not account for the totality of the data, even in Vedic: a more ordinary denominative sense 'do X' (arising from the meaning of the base word) is clearly found in RV *adhvarīyá-* (1a) and AV *śapathīyá-* (1h);[17] and a meaning 'treat like X' (thus *putrīyá-* in part 'treat like a son') is authorized by Pāṇini (3.1.10) and otherwise documented for a number of post-Vedic forms (e.g. (3j), (3k), (3q)), beside still other senses, such as 'resemble X, behave like X' (e.g. (3a), (3b), (3e), (3i), (3m), (3o)).

5 Earlier approaches (part 1): inherited (or via inherited patterns)

5.1. Let us turn to the historical/comparative analysis. The most widespread assumption is the one reflected in the assertion by Thumb-Hauschild (1959:356): "Die Bildung ist sicherlich alt, vgl. lat. *equīre* 'rossen' : *equus*, *catulīre* 'brünstig sein' : *catulus*."[18] One cannot deny the superficial attractiveness of this comparison, given the fact that

[16] Among *i*-stem-based forms, cf. similarly (*árāti-* 'malignity' →) RV *arātīyá-* vs. AV *arātiyá-* 'be malevolent'.

[17] Similarly for the RV hapax *rathīyá-* (1g): traditionally 'fahren wollen' (so Grassmann, s.v.); but there is nothing in the context of 1.166.5d that favors this (*rathīyántīva prá jihīta óṣadhiḥ* "every plant bends forward as if driving a chariot"; Jamison and Brereton 2014:363).

[18] This conception follows Bezzenberger (1903:202–3); cf. more recently Nussbaum (1975:161 n. 114): "the parallelism of Skt. *putra-* 'son' : *putrīyant-* 'desirous of offspring' [scil. with Lat. *catulus* 'cub, pup, whelp' : *catulīre* 'be in heat'—BV] is striking."

thematic denominatives in Italic display *i*-conjugation (i.e., they belong to the fourth conjugation, in Latin terms), which resembles the "*i*-conjugation" in *putrīyánt-* (as opposed to the expected "*a*-conjugation" in *-ayá-* or *-āyá-*). But this connection is at best a case of *obscurum per obscurius* (the *i*-conjugation of thematic denominatives being a notorious problem of Italic historical grammar) and I think is ultimately to be rejected. First of all, the *i*-conjugation of thematic denominatives is general in Italic (e.g. Lat. *servus* 'slave' → *servīre* 'be a slave', *saevus* 'cruel' → *saevīre* 'be cruel'; in Sabellic, e.g. U. **seritu**/*seritu* 'observato, servato', belonging formally with Lat. *servīre*) and is not restricted to a few animal-husbandry terms like *equīre*.[19] The arguably desiderative semantics shown by a few such terms may thus be secondary, in which case the proper comparison—if a comparison is to be made in the first place—is with the entire category of Italic thematic denominatives, and not just these few forms (a point already clear to Bezzenberger). For this difficult problem of Italic morphology, earlier proposals have attempted to justify actual *i*-stem sources for the Italic *i*-conjugated denominatives. But as I have discussed elsewhere (2012:556–64), this approach is fundamentally flawed, and the Italic forms with *i*-conjugation, despite appearances, may actually go back to ordinary thematic denominatives of the familiar *κοσμέω* type (§1). If that is so, then forms like Lat. *equīre*, *servīre*, *saevīre*, U. **seritu**, etc. would not actually continue an inherited *i*-formation of any kind. Yet forms of the type Ved. *putrīyá-*/*putriyá-* necessarily go back to a prototype with earlier long or short /i/ preceding the **-i̯e/o-* suffix, suggesting that the comparison between the *putrīyá-*/*putriyá-* type and Latin forms like *equīre*, *servīre* etc. has little chance of being valid.

5.2. According to a more recent (and avowedly tentative) proposal by Birgit Olsen (2004:237 n. 9), the basis of the Sanskrit type is indeed an *i*-stem form (**putl-i-*), which is then extended by the zero grade of the athematic optative suffix (**-ih*$_1$*-*), followed by the denominative suffix (**-i̯é/ó-*): thus *putrīyá-* < **putl-i-ih*$_1$*-i̯é/ó-*. *Ceteris verbis*, the athematic optative suffix is "infixed" between the noun stem and the thematic denominative suffix. Brief notice of this theory was taken by Martzloff, who commented (2006:687) that "l'hypothèse… nous semble échapper à la démonstration"—an evaluation with which one must agree. Indeed, the matter can be put more strongly. The proposed formation, unexampled elsewhere, is highly improbable morphologically; and the reconstruction with the optative suffix, designed to account for the desiderative meaning, carries its own problems: as we have seen, non-desiderative meanings are also found, and (as we will see later) the desiderative meaning itself may even be indicative of a late syndrome, with no basis in anything inherited.

Nevertheless, the idea that the Indic thematic denominatives in *-īyá-* have their

[19] In addition to *equīre* and *catulīre*, also *surīre* 'be sexually excited (of males)' (Apul. *Apol.* 38, cf. Festus 408.14L *ex. coni.* for transmitted *subire*), cf. perhaps *surus* 'post, stake', *surculus* 'shoot, sprout'. (None of these verbs is to be found in de Vaan 2008, despite their prominence in historical/comparative treatments of the Skt. *putrīyá-* type.)

origin in actual *i*-stems like **putl-i-* is itself not inconceivable, in at least two respects (§§5.3–5.4).

5.3. The first of these involves the well-known category of so-called *cvi* formations, in which thematic forms alternate with forms in long *ī* (*i*-stem instrumental singulars in origin), in constructions with auxiliary verbs, especially *kṛ* and *bhū* (see e.g. Whitney 1889:401–2). Thus, in yet another suggestion about the background of forms like *putrīyánt-*, Thumb-Hauschild (1959:356) note the relationship between thematic stems and the /ī/ of *cvi* formations, and considers it probable that there is a connection between *cvi* formations and thematic denominatives in *-īya-*.[20] Now *cvi* behavior (rather predictably) is certainly attested for some of the Classical material, as in forms like the following:

(6) a. *kṣetrīya-* (3c): *kṣetri-kṛ-* (Kād., AgP.)
b. *citrīya-* (3f): *citri-kāra-* (Lalit.), *citrī-kṛta-* (Śak.)
c. *mitrīya-* (3j): *mitrī-kṛ-* (RAnukr., Kām. etc.), *mitrī-kṛta-*, *mitrī-bhū-* (Kathās.)
d. *sutīya-* (3q): *sutī-bhūta-* (Kathās.)
e. *sthalīya-* (3r): *sthalī-bhū-* (Naiṣ.)

Some of this material is quite late: thus *kṣetrī-kṛ-* (: *kṣetrīya-* (6a)) in Bāṇabaṭṭa's prose romance *Kādambarī* (7th cent. CE) and in the Agni-Purāṇa, or *sutī-bhūta-* (: *sutīya-* (6d)) in the *Kathāsaritsāgara* (11th cent. CE), and so on. Still, one can cite, for the sūtra form *ghanīya-* (§3), a *cvi* form *ghanī-bhūta-*, attested as early as the *Rāmāyaṇa* and the *Harivaṃśa* (also in Suśruta), alongside later material like *ghanī-kṛ-* (Daśar.) and *ghanī-kṛta-* (Bhpr.). But for the forms from Veda and Brāhmaṇa, there is virtually nothing of this kind: to the best of my knowledge, there is only a form *putrī-bhū-* in the Bhāgavata-Purāṇa, and *putrī-kṛta-* in the *Raghuvaṃśa* of Kālidāsa and in the much later historical poem *Rājataraṃginī* (perhaps a 12th-century composition). This makes it tolerably clear that despite the position taken by Thumb-Hauschild, the denominative type *putrīyá-* likely has no connection historically with the synchronic Sanskrit *cvi* formation. There is little surprise, then, that this denominative type goes entirely unmentioned in the comprehensive study of the *cvi* formation by Balles (2006).

5.4. But there is another sense in which an *i*-stem basis is conceivable: this concerns the historical background of the *cvi* formation itself, as elucidated in a celebrated paper by Jochem Schindler (1980). According to Schindler's theory, subsequently developed by many others, the alternation between *o*-stems and *i*-stems is an inherited feature of Proto-Indo-European, only one manifestation of which is the Indic *cvi* formation. In principle, then, it is worth considering whether the *putrīyánt-* type goes back to such

[20] "Zudem darf nicht außer acht gelassen werden, daß nominale *a*-Stämme auch in der Verbalkomposition den Ausgang *ī* zeigen, z.B. *svī-kar-* ... zu *sva-* u.ä. ... : ein Zusammenhang dieser Formen und der Denominativa auf *-iyati* ist daher wahrscheinlich."

i-stem variants of *o*-stems. There may in fact be some limited (if suggestive) evidence for old *i*-stem bases of this type, as in Ved. *caráṇi-* 'movable, active' (RV 8.24.23c only) beside *caraṇīyá-* (1c.); similarly, RV + *putrín-* 'possessing children' beside *putrīyá-*, can be interpreted (like other such *n*-stem adjectives) to have had a plain *i*-stem basis originally.[21] There is, however, no trace of *i*-stem forms for the other Vedic material (there is no †*adhvari-*, no †*anni-*, etc.); thus, if we are to operate with a form like [*]*putri-* as the basis for *putrīyánt-*, we must explain not only why the *i*-stem form was favored for the denominative formation related to *putrá-* (that is, why there is instead no †*putrayáti*, the predicted form), but we must also explain how this pattern of making *i*-denominatives out of thematic stems spread to other thematic nouns like *adhvará-*, *ánna-*, and others.

Conceptually, these problems are reminiscent of those posed by the Italic thematic *i*-denominatives, as already indicated (§5.1). Yet this similarity does not authorize an assumption that the two formations reflect something inherited; and a truly old formation is in any event disfavored by the lack of an Iranian counterpart to the *putrīyá-* type, although this fact by itself cannot be conclusive.

6 Earlier approaches (part 2): via inner-Indic developments

We are led, then, to consider the possibility of inner-Indic development, and several theories of this kind have already been proposed.

6.1. Following on a brief discussion of denominatives based on resonant stems,[22] Barber (2013:225) observes that the *putrīyá-* type[23] "could perhaps represent some secondary extension of Sievers' Law," but is not likely to represent "the direct outcome of Sievers' Law." The assumption here, presumably, is that these are at bottom truncated denominatives (cf. n. 6 above), with a Sievers-like alternation between *-yá-* (for light roots) and *-iyá-* (for heavy roots). But this raises more questions than it answers. One would need to account not only for the generalization of the heavy-root version *-iyá-*, but also its appearance mainly in the form *-īyá-* (e.g. after the pattern of *i*-stem denominatives, where *-iyá-* and *-īyá-* alternate). There is, in any case, no reason to think that the formation has anything to do with truncated thematic denominatives.

6.2. According to Sütterlin (1906:558–9), the *putrīyá-* type is nothing other than the *i*-stem denominative pattern itself, which has spread beyond the *i*-stems to other stem types, on the basis of parallel formations—that is, cases in which *i*-stems had synonymous variants that were thematic or belonged to still other stem classes. This

[21] Less probative, but perhaps of some interest, are some relatively early forms with *putri-* as a derivational base or as the first member of compounds: *putrikā-* 'daughter' (Manu, Mbh +), *putriputra-* 'daughter's son' (ŚāṅkhŚr), *aputriya-* 'childless' (ŚāṅkhGṛ +).

[22] On form and meaning, see especially Tucker 1988:109–10 on Ved. *vṛṣāyáte* 'act like a bull' beside *vṛṣaṇyáti* 'be lustful'.

[23] Oddly identified as "the Classical Sanskrit *putrīyati* type" by Barber, perhaps thinking of its productivity in the classical language (cf. (3) above).

would be plausible if there were a sufficient number of instances that would help account for the earlier material in particular; but this does not seem to be the case. The closest that Sütterlin can come to illustrating the kind of pattern his theory requires is a set like *dúṣṭi-* 'corruption' (AV+) beside its denominative *duṣṭīyá-* 'become corrupted' (Pāṇini), along with thematic *duṣṭa-* 'corrupted' (first in the Śrauta-Sūtras) and the feminine *ā*-stem abstract *duṣṭā-* (in epic Sanskrit). The pattern is reminiscent of what we saw in connection with the possibility of an *i*-stem *putri-* (§5.4, with n. 21); but the explanatory value of such relatively late material, especially for the older forms, is very limited.

6.3. In a similar way, Sütterlin called attention to striking semantic convergences ("Bedeutungsanklänge") among the thematic-based *-īya-* verbs: he notes (1906:559–60) that there is an abundance of terms that fall within certain semantic categories, such as words relating to the family, to food and drink, and so on. But this observation, as we have seen, is more germane for the later material than the early forms, and thus is not helpful for interpreting the background of the formation.

6.4. We cannot omit mention of the often-noted co-occurrence of *putrīyá-* (RV 7.96.4b) with *janīyá-* (RV 7.96.4a), in a parallel construction (semantically, morphologically, and syntactically) in consecutive pādas of the same stanza:

(7) *janīyánto nv ágravaḥ*
putrīyántaḥ sudā́navaḥ
sárasvantaṃ havāmahe
"As bachelors in search of wives, in search of sons, possessing lovely gifts, we call upon Sarasvant." (trans. Jamison and Brereton 2014:1004)

Yet this juxtaposition, in and of itself, does not prove much: it does not show, for example, that the form of *putrīyá-* must be due to *janīyá-*, even though this assumption is commonly held.[24] In fact, the only other Rig-Vedic occurrence of *janīyá-* (4.17.16c) also involves parallel denominatives with desiderative meaning:

(8) *gavyánta ...*
aśvāyánto ... vājáyantaḥ[25]
janīyánto ...
"Seeking cows, seeking horses, seeking prizes[26] ...; seeking wives ..."
(trans. Jamison and Brereton 2014:583–4)

[24] E.g. Bloomfield and Edgerton 1930:1.155, still followed by Albino (2013:74 with n. 52).

[25] Or *vājayántaḥ*, with denominative accent? See next note.

[26] I.e. as if *vājayántaḥ*, denominative participle to *vā́ja-* 'strength; booty'; similarly e.g. Geldner ("den Siegerpreis begehrend"), Tucker ("seeking booty", 1988:99), Elizarenkova ("желая добычи," 1989:379), Witzel, Goto, and Scarlata 2013:146 ("nach dem Siegespreis strebend") but differently Thieme ("Kraft zeigend", 1980:130), as causative to *vaj* 'be strong'.

At least in this case, *janīyá-* did not induce a thematic denominative †*aśvīyá-*, like *putrīyá-*.[27]

6.5. If we look more closely at the attestations of these forms in the texts, it is the prevalence of participial forms (cf. §4 on RV *caraṇīyámānā*), together with the prominent desiderative sense, that is particularly striking; and indeed, as Fortson has shown (2003:67–73), these two features are intimately linked, since denominatives with desiderative meaning are primarily attested as participles. In the context of Sanskrit denominative verbs, these features have both been studied by Elizabeth Tucker, who convincingly argues, in her 1988 paper on innovations in the system of Indic denominatives, that they are indicative of late developments (see especially 1988:95–109). She has also made the interesting suggestion (1988:113 n. 23) that the "morphologically marked" denominatives in *-īya-* and *-asya-* "may be closer to the realities of the Old Indic used in everyday speech during the Vedic period." For the *-īya-* denominatives, this suggestion may be supported not only by the prominence of these forms in the grammatical tradition and their scarcity in Vedic language (the two points Tucker mentions), but also by the overall post-Vedic profile these forms display, such as their general absence from sūtra-literature and from epic language, and the concentration of vocabulary in certain everyday semantic fields, as already described.

6.6. As for the vowel-length alternation (§2): despite Sütterlin (1906:560), who aligns this alternation with the similar one seen in *i*-stem denominatives (§§4, 6.2), this surely has nothing to do with nominal *i*-stem alternations like *páti-* ~ *pátnī*. Rather, the alternation is probably best considered in terms of the prosodic patterning that governs thematic denominatives in *-aya-* and (with lengthened thematic vowel) *-āya-*, as elucidated by Insler (1997).[28] Note further that for nearly all of the forms in Vedic poetry, the length of the /i/ is metrically predictable: thus the forms with /ī/ occupy positions in the cadence of dimeter and trimeter verse where long vowel is required:

(9) ... *adhvarīyási* # (Jagatī cadence: RV 2.1.2c, 10.91.11d)
... *caraṇīyámānā* # (Triṣṭubh cadence: RV 3.61.3c)
... *adhvarīyatā́m* # (8-syllable cadence: RV 1.23.1b, 4.9.5a)
... *śapathīyáte* # (8-syllable cadence: AV-Ś 5.14.b, 10.1.5b)

and in contrast, *ánniyate* (RV 4.2.7a) occurs in the early-caesura break of a Triṣṭubh line (# × × × × || *ánniyate* || × × × #), where short /i/ in that syllable is all but required.[29] The only form that may actually be unpredictable metrically is pāda-initial

[27] It is unclear how much weight to assign the *aśviyá-* attested exclusively in grammatical literature ((2b) above).

[28] See also Insler 1987 and 2005 for brief notice of *-iya-*/*-īya-* and *-uya-*/*-ūya-* in these terms.

[29] Hence Albino's suggestion (2013:74) that the short /i/ in *ánniyant-* results from an actual metrical shortening. See also Albino (ibid., with references) on the unexpected root accent, evidently based on the Grundwort *ánna-*, which follows almost directly in the cadence of the same pāda.

putrīyántaḥ (7), where we have variation between long and short vowel between Rig-Veda and Atharva-Veda (cf. *# putriyánti* AV-Ś 14.2.72b). As pointed out to me by Dieter Gunkel,[30] prosodic lengthening in thematic denominatives is ultimately related to the avoidance of three consecutive light syllables. Viewed in this light, *ánniyate* in # × × × × || *ánniyate* || × × × # (RV 4.2.7a) recovers essentially the pattern of "unlengthened" *-aya-* denominative stems with heavy first syllable, cf. *devayá-* in

(10) # × × × × || *devayaté* || × × × # (RV 7.18.1d)
× × × × || *devayávo* || × × × # (RV 1.154.5b, 7.97.1b)

and in that case, one could say that—just as the underlying length of the (first) /a/ in *deva(yá)-* is effectively indeterminate—the underlying length of the /i/ in a form like *ánniyate* is equally so, a point that should be taken into account in evaluating the historical background of the entire formation.

7 Conclusions

The results of the "house cleaning" operation promised at the outset, with attendant updating and problematizing, are predictably modest. Still, the following points may contribute to an eventual solution to the problems posed by the Vedic thematic denominatives in *-īyá-* (~ *-iyá-*):

(11) a. The traditional comparison with Latin *o*-stem denominatives like *equīre* (and, more generally, Italic *o*-stem denominatives with *ī*-conjugation) is probably specious, and an inherited formation of any kind is unlikely.
b. The type is probably not directly related to the synchronic *cvi* formation, though archaic *i*-stem alternants of thematic stems could have played a role (even if various details remain obscure).
c. The overall morphological and semantic profile suggests a recent development, similar in kind to the innovatory denominatives discussed by Tucker (1988); and the formation may be proper, as she suggested, to the spoken language.
d. The length alternation is probably related to the widespread "rhythm rule" identified by Insler; thus the historical source of *-īyá-* for these forms is as likely **-iyá-* as **-īyá-*.

Abbreviations

CA = *Śaunakīyā Caturādhyāyikā* (Deshpande 1997).
Thumb-Hauschild 1959 = Thumb, Albert. 1959. *Handbuch des Sanskrit*. Part 2: *Formenlehre*. 3rd ed. rev. by Richard Hauschild. Heidelberg: Winter.

[30] Based on unpublished work that elaborates on Insler's basic insights about secondary lengthenings.

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“Sleep” in Latin and Indo-European: On the Non-verbal Origin of Latin *sōpiō*

MICHAEL WEISS

> *λάμβανέ οἱ στέφανον, φέρε δ' εὔμαλλον μίτραν,*
> *καὶ πτερόεντα νέον σύμπεμψον ὕμνον.*
>
> Pi. *I.* 5.62–3

1. The Latin verb *sōpiō* ‘to put to sleep, render unconscious’ has played a prominent role in theorizing about the accent–ablaut characteristics of the Proto-Indo-European root **su̯ep-* ‘fall asleep’ and, more generally, about the operation of the “Narten” ablaut system.[1] The chief question about *sōpiō* is why this verb with causative semantics is a fourth-conjugation form with a long *ō* in the first syllable and not †*sopeō*, the expected cognate of Ved. *svāpáyati*. The well-known account of Gert Klingenschmitt (1978) explains *sōpiō* as a reflex of the Narten causative **su̯ṓp-i̯e-* with a lengthened *ō*-grade standing in for the normal causative *o*-grade and with **-i̯e-* as the zero-grade of **-éi̯e-*.[2] More recently Brent Vine has argued with good reason against the existence of such a surprising zero-grade of the causative suffix and sought to explain the Latin form from a Narten causative **su̯ṓp-ei̯e-* with an accent-conditioned reduction of **-ei̯e-* to **-ije-*.[3] Although I am sympathetic to the Vine approach, I would like to take a page from our honoranda’s book and examine in detail the philological facts and patterns

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[2] An idea partially anticipated by Walde (1906:584), though obviously not within the elaborated Narten theory.

[3] Vine 2012:554. The attractiveness of Narten ablaut for this root is significantly reduced if Kroonen 2013 s.v. **swēbjan-* is correct in explaining ON *sæfa* ‘kill’ as secondary from *svǽfa*. The parallel cited by Kroonen, ON *sænskr* (the predominant OWN form) for *svǽnskr* ‘Swedish’, is normally explained as generalized from the combined effects of the preceding *v* and the *u*-umlaut that would have been expected in the dat. sg. m. and dat. pl. (see Noreen 1923:87). This seems necessary because initial *svæ-* does not regularly become *sø-*. Cf. e.g. ON *sværa* ‘mother-in-law’ < **swehrjōn-*. In the case of *sæfa* *u*-umlaut would originally be expected in the 1st sg. and pl. This could then lead to a planarian paradigm split into *sæfa* and *svǽfa*, which like *sæfa* itself is attested from the 13th century. The semantic difference between *sæfa* ‘kill’ and *svǽfa* ‘lull to sleep’ is consistent with Kuryłowicz’s fourth law of analogy. Note that the base verb *sofa* ‘sleep’ also contains an unexpected *o* that is probably the result of a sporadic rounding of **swefa* in the highly labial environment *w_f*. For another possible explanation of *sæfa* see Bammbesberger 1980.

of attestation of the verb *sōpiō* before using this form to argue for phonological or morphological novelties.[4]

2. The first notable fact is that the idea “X causes Y to sleep” is never expressed by a form of *sōpiō* in Old Latin.[5] Of course, a nonmagical individual cannot normally make another go to sleep, but (s)he can render him unconscious through a blow or by drugs.[6] These and other sleep-inducing instrumental adjuncts may also function as inanimate causer-subjects. Thus we might expect to find a use for a deverbal causative comparable to Ved. *svāpáyati*, which itself is normally a euphemism for ‘kill’. There is one context in Plautus that seems to call for such a causative. In the *Amphitryo* the slave Sosia returning to his house late at night sees Mercury hanging about. Sosia comments (295–8):

(1) Perii, dentes pruriunt;
certe advenientem hic me hospitio pugneo accepturus est.
credo misericors est: nunc propterea quod me meus erus
fecit ut vigilarem, hic pugnis faciet hodie ut dormiam.
“I’m done for. My teeth are chattering.
For sure this guy is going to receive me with the hospitality of the fist.
I think he’s kindhearted. Now since my master made me stay up,
this guy will really make me sleep with his fists.”[7]

For Plautus ‘to make someone sleep’ was apparently expressed *facere (aliquem) ut dormiat* (+ INSTR.).[8] The theme of ‘putting someone to sleep’ is continued when Mercury trying to frighten Sosia addresses his own fists (302–4):

[4] One cannot help but be struck by the differing philological treatments of Latin and Vedic in Klingenschmitt’s 1978 article. The Vedic facts about *svap-* are documented in painstaking detail, but not one word is spent on the attestations of *sōpio*. The forms of Latin are—or were in the 20th century—too familiar for their own good.

[5] For one apparent but insubstantial exception (*non com[memo]ro quod draconis saevi sopivi impetum*) attributed—falsely, I believe—to Ennius, see below.

[6] Of course, children can be put to bed, but, as any parent knows, this is not the same as making them go to sleep. In any case, the normal Republican Latin idiom for ‘to go to bed’ is *dormitum ire* (Pl. *Cur.* 183, etc.) or *cubitum ire* (Cat. *Agr.* 5) and ‘to make someone go to bed’ is *iubere dormitum ire* (Pl. *Mos.* 693) or *suadere ut eat dormitum* (Caecil. 96).

[7] On the bleached meaning of *hodie*, which occurs often in threatening and negative statements, see Waginingen 1918. (All translations are my own, except as noted.)

[8] A similar collocation with *facere* is found a number of times in Ovid with *somnum/somnos* as the direct object: *Ars* 3.647 *Sunt quoque quae faciant altos medicamina somnos* “There are also drugs that cause deep sleep”; *Fast.* 1.421 *nox erat, et vino somnum faciente iacebant* “It was night and, wine causing sleep, they were lying”; *Fast.* 2.17–8 *dum sedet, umbrosae salices volucresque canorae / fecerunt somnos et leve murmur aquae* “While she (Silvia) was sitting, the shady willow, the tuneful birds and the soft murmur of the water brought on sleep”; *Met.* 7.132 *verbaque ter dixit placidos facientia somnos* “Three times she (Medea) said the calming sleep-inducing words.” With the sense of ‘cause’ expressed by *movere*: *Met.* 11.306 *virgaque movente soporem* “and the wand (of Hermes) causing slumber.”

(2) agite, pugni, iam diu est quom ventri victum non datis:
iam pridem videtur factum, heri quod homines quattuor
in soporem collocastis nudos.
"Come on, fists, it's a long time since you've given my belly food.
It seems to have happened quite a while ago when yesterday
you put to sleep four men naked."

To which Sosia replies (304-6):

(3) Formido male,
ne ego hic nomen meum commutem et Quintus fiam e Sosia;
quattuor nudos sopori se dedisse hic autumat:
metuo ne numerum augeam illum.
"I'm really afraid
that I'm going to change my name from Sosia to Quintus (i.e. fifth).
This guy claims he gave four naked guys to sleep.
I'm afraid I'll increase their number."

In this passage Mercury's fists 'place men into sleep' (*homines in soporem collocare*), and this idea is taken up by Sosia as 'give men to sleep' (*dare homines sopori*).[9] In fr. 3 of Cato's *Libri ad Marcum filium* we learn that rabbit is a sleep-inducing food:

(4) Lepus multum somni adfert qui illum edit.
"Rabbit brings a lot of sleep to the one who eats it."

This is the earliest example of the BRING SLEEP collocation, which has various lexical instantiations in later Latin.[10]

3. As the preceding discussion shows, Old Latin literature did contain contexts calling for the causative of 'sleep', but evidently there was no synthetic expression for the idea—most importantly, not even *sōpīre*. In fact, this verb is virtually unattested in OLat.[11] What function do forms of the verb *sōpīre* have when they first occur? If one

[9]The verbs *dare/donare* also take SLEEP as a direct object in a number of later passages: Nep. *Di.* 2.4.35 *ne agendi esset Dioni potestas, patri soporem medicos dare coegit* "He (Dionysius the Younger) forced the doctors to make his father sleep deeply lest Dion have the possibility of talking with him"; Verg. *A.* 4.244 *dat somnos adimitque* "(with the caduceus Hermes) brings and takes away sleep"; Ov. *Fast.* 6.385 *iam ducibus somnum dederat labor* "Now toil had given sleep to the leaders"; Ov. *Am.* 1.13.42 *Aspice, quot somnos iuveni donarit amato / Luna!* "See how many sleeps the Moon gave to her beloved youth!"

[10]Tib. 1.2.79–80 *Nam neque tum plumae nec stragula picta soporem / Nec sonitus placidae ducere possit aquae* "For neither down nor an embroidered coverlet nor the peaceful sound of water can bring sleep"; Ov. *Met.* 2.735–6 *ut teres in dextra, qua somnos ducit et arcet, / virga sit* "so that in his right hand the wand with which he (Mercury) brings and wards off sleep be polished."

[11]I say "virtually" because the form *sopivi* is found in a fragment that is sometimes attributed to Ennius. See below.

examines all instances of *sōpīre* occurring in Republican authors, one finds a striking pattern. *All fifteen occurrences are forms of the "perfect passive participle"* sōpītus.[12] These are the examples in rough chronological order:

(5) a. tum bis senos incubuisse sopitis (Val. Ant. *hist.* 6, ca. 80–60 BCE)[13]
"Then twelve men fell upon them while they slept."

b. blandimenta . . . quibus sopita virtus coniveret interdum (Cic. *Cael.* 41, 56 BCE)
"Allurements because of which slumbering virtue sometimes closes its eyes . . ."

c. Cn. Pompeius excitavit illam suam non sopitam sed . . . retardatam consuetudinem rei publicae bene gerendae (Cic. *Sest.* 67, 56 BCE)
"Pompey roused that custom of his, not sleeping but hindered, of doing good service to the Republic."

d. Effice ut interea fera moenera militiai /. . . sopita quiescant (Lucr. 1.29–30, ca. 55 BCE)
"Make all the fierce works of war sleep in peace."

e. Quod genus in somnis sopiti ubi cernimus (Lucr. 3.431)
"As happens when asleep we see in dreams . . ."

f. Tu quidem ut es leto sopitus . . . (Lucr. 3.904)
"You indeed, as you sleep in death . . ."

g. Cum pariter mens et corpus sopita quiescunt (Lucr. 3.920)
"When the mind and body equally sleep in peace . . ."

h. Eadem aliis sopitu' quiete est (Lucr. 3.1038)
"(Homer) sleeps in quiet like the rest."

i. Castoreoque gravi mulier sopita recumbat (Lucr. 6.794)
"And a woman falls asleep at the strong scent of castoreum."

j. (Ea pars animi) sopita langueat (Cic. *Div.* 1.60, 44 BCE)
"That part of the soul is languid in sleep."

k. Ut sopito corpore ipse (animus) vigilet (Cic. *Div.* 1.115, 44 BCE)
"So that the soul itself stays awake when the body sleeps."

l. Hoc aeger sumpto ut somno sopitus diem obiit supremum. (Nep. *Di.* 2.4.35, ca. 34 BCE)
"Sick from this dose he (Dionysius) met his end like one plunged in sleep."

m. Sopitum fuisse regem subito ictu (Liv. 1.41.5, ca. 30 BCE)[14]
"(She reported) that the king was unconscious from the sudden blow."

[12]I exclude forms of *consopio* to which I return below. Of course, the dividing-line of 27 BCE is entirely arbitrary and admittedly chosen to make the ratio most striking, but any other dividing-line would be equally arbitrary and only change the numbers insubstantially. See n. 25 for the figures from Julio-Claudian authors.

[13]On the date of Valerius Antias see Rich 2005.

[14]According to the arguments of Burton (2000), the first edition of the first pentad of Livy was composed between 33 and 30 BCE.

n. Postquam satis tuta circa sopitique omnes videbantur . . . (Liv. 1.58)
"After everything around was sufficiently secure and all seemed to be asleep . . ."

o. Mansuetum id malum . . . tum quiesse, peregrino terrore sopitum, videbatur (Liv. 3.16.5)
"That mild evil (i.e. disrespect for the authorities) seemed to have gone quiet sleeping in the presence of the foreign danger."

4. Before we turn to an explanation of this peculiar distribution, let us examine the one apparently Old Latin and finite form of the verb. The *Ars Grammatica* attributed to the 4th-century-CE grammarian Charisius contains a two-line quotation from a Roman tragedy, evidently a Medea play, which the author cites twice to illustrate the rhetorical feature he calls first *paralipsis* and then *negando*. Below is the text of the two passages quoted from Barwick's (1964) edition (p. 372 Barwick, 284 K; p. 374 Barwick, 286 K, Vahlen 274–75, Schauer 2012:285–6, F Adesp. 136):

(6) Per paralipsim, [in quo] cum volumus negantes aliquid indicare, tam quam

non com[memo]ro quod draconis saevi sopivi impetum
non quod domui vim taurorum et segetis armatae manus[15]

"Through *paralipsis*, in which when we wish to indicate something, though denying (that we are doing so), e.g.

I don't mention that I put to sleep the attack of the fierce dragon,
not that I conquered the force of bulls and the bands of the armed crop."

(7) Negando, cum quid negantes volumus inducere atque improperantes beneficia, quae audiens cognoscat

non ⟨com⟩memoro quod [dra]conis saevi sopivi impetum,
non quod domui vim taurorum et segetis armatae manus.[16]

"By negation, when we want to introduce something while denying that we are doing so and blaming (?)[17] the benefits so that the hearer may know. I don't mention (etc.)"

[15] Barwick's apparatus: quod latroni statui oppressi et dom.. (domus n) ista virorũ et segetis armata manus N.

[16] Barwick's apparatus: sopivit N domavit viros et N.

[17] The meaning of the sentence from *improperantes* to *cognoscat* is quite unclear.

Granting for the sake of argument that the very corrupt text has been correctly restored, we would appear to have two lines from a speech of Medea's recounting the notable services she has rendered to Jason. Charisius does not attribute this quotation to any author, but many have seen a line from Ennius' *Medea Exul*. There are, however, two features that are rather surprising in this passage for an archaic Latin author. As noted by the *TLL* s.v. *commemoro*, the simplex *memoro* and the compound *commemoro* have a very notable distribution. Basically, archaic and archaizing authors prefer the simplex and authors striving for *urbanitas* favor the compound. Thus Cicero uses *commemoro* 215 times but *memoro* only 4 times. Sallust, on the other hand, uses *memoro* 18 times and *commemoro* only once. In the scant remains of Ennius *memoro* is used 10 times and *commemoro* not at all, unless the passage in question is included. Thus at a minimum we can say that *commemoro* is not a typically Ennian word choice.[18] Second, there is the oddity of the finite perfect of *sōpīre*, which is otherwise unparalleled in Old Latin. The perfect stem of *sōpiō* shows up first in Livy[19] and Ovid.[20]

Medea was adapted many times in the history of Latin literature, not only by Ennius, but also by Accius, Ovid, Seneca (whose play is extant), Curiatius Maternus, and perhaps Lucan.[21] The trochaic septenarii are consistent with the practice of any of the early Republican tragedians, but not with the practice of Seneca, who rarely uses the meter and always with trochaic feet in the 1st, 3rd, and 5th feet.[22] We are not well informed about the meters of Augustan tragedy, which has been almost entirely lost, but it is probable that the shift to stricter iambo-trochaic meters was accomplished in this time period.[23] The one surviving iambic line of Ovid's *Medea* conforms to the

[18] Loewenstein Drabkin (1937:82) also notes that the use of *quod* plus an indicative after *commemoro* is unparalleled in the Old Latin period. Aside from this passage, forms of *commemoro* occur 19 times in Old Latin (14× Plautus, 1× Pacuvius, 1× Afranius, 3× Terence). The possible complements are NPs, indirect questions, and acc. plus inf. The next example of a *quod* clause with an indicative occurs in a letter of Marcus Aurelius to Fronto p. 60: *idne primum commemorem quod ad Iulianum nostrum . . . ire conisus es* "Should I recount this first . . . that you tried to go to our Julian?" This point, however, does not carry much weight. The use of *quod* plus the indicative in the rhetorical figure variously called *paralipsis*, as in Charisius, or *antiphrasis*, as in Iulius Rufinianus, seems to have been a normal usage at least by the time of Terence (*Eun.* 926–8: *nam ut mittam, quod ei amorem difficilumum et / carissumum . . . eam confeci sine molestia* "Not to speak of the fact that I brought about that love affair which was both very hard and very dear to him without any trouble"). Rufinianus quotes Lucil. 1224 as an example: *non tango, quod avarus homo est, quodque improbus, mitto* "I don't touch the fact that he is a greedy man and I omit that he is wicked."

[19] Liv. 24.46.5: *imber . . . lentior . . . accidens auribus magnam partem hominum sopivit* "The rain falling more gently on the ears put to sleep most of the men."

[20] Ov. *Met.* 7.213 (ca. 8 BCE): *custodemque rudem somni sopistis* "And you put to sleep the guardian ignorant of sleep."

[21] See Arcellaschi 1990 and Cowan 2010. The *Vita Lucani* of Vacca mentions a *tragoedia Medea inperfecta*. Pacuvius wrote a sequel to the Medea story, *Medus*, and Accius wrote a kind of prequel. Neither play is likely to have included a scene corresponding so closely to Euripides' *Medea*.

[22] On the assumption that Senecan practice reflects that of the lost Augustan tragedy, we may suspect that the septenarius was not used frequently by Ovid. Seneca has this meter only in three short passages in his surviving tragedies (*Med.* 740–51, *Phaed.* 1201–12, *Oed.* 223–32).

[23] See Soubiran 1988:5.

stricter standards followed by Seneca. Thus it is unlikely that this line can be attributed to Ovid. On the other hand, it is probable that these lines were known to Ovid. There are two other passages in Latin literature where Medea's pacification of the dragon is described with the verb *sōpīre*. These are Ov. *Met.* 7.149 *pervigilem superest herbis sopire draconem* "The remaining task is to put to sleep the wakeful dragon with herbs" and the perhaps pseudo-Ovidian *Ep.* 12.171 *quae me non possum, potui sopire draconem* "I who cannot put myself to sleep, though I was able to put to sleep the dragon."[24] Ovid also attests the collocation *seges clipeata* 'the shield-bearing crop' (*Met.* 3.106) in reference to another set of earth-born warriors, those sown by Cadmus from the teeth of a different dragon, a phrase closely related to the *segetis armatae* of our passage.[25]

This examination leaves us with no satisfactory conclusion. The fragment is unlikely to come from any of the known *Medea*'s, but it is likely to be a piece of Republican Latin. If this is so, the *sopivi* of these lines is among the earliest examples of a finite verbal form. We will return to this fact below.

5. This great predominance of the "perfect passive participle" continues into the early Imperial period, although the ratios are not quite as overwhelming.[26] Why should this be? Perhaps it is somehow a fact that for unknown reasons causatives of 'sleep' predominantly occur in the passive participle. We can test this hypothesis by examining the ostensibly cognate verb *svāpáyati* in Vedic. In the *Rig Veda* the causative stem *svāpáya-* occurs 6 times:

(8) a. *ní jánān svāpayamasi*
"We make the peoples sleep." (7.55.7d)

b. *tā́ḥ sárvāḥ svāpayamasi*
"All these we make sleep." (7.55.8d)

c. *ní ṣvāpayā mithūdŕ̥śā*
"Put to sleep the two of opposite appearance!" (1.29.3a)

[24] See Knox 1986.

[25] Charisius does quote Ovid on occasion, usually with attribution, but not at p. 368 Barwick where *impete* for *impetu* in *Met.* 3.79 is quoted as an example of *antithesis* (*litterae pro littera immutatio*). Explicit attributions are, with the exception of the first quotation from Terence, not given throughout the *schemata dianoeas* section of Book 4. All the other quotations except for the one of Vergil's *Eclogue* 3.10 given without attribution are unknown. For the fragments and testimonia for Ovid's *Medea* see Schauer 2012:156–7. One line is an iambic senarius and the other is an anapestic tetrapody.

[26] For authors of the Julio-Claudian period there are 41 examples of *sōpītus* vs. 10 examples for all other forms. The loci for forms of *sopitus* are: Verg. *A.* 1.680, 5.743, 8.410, 8.542. 10.642; Liv. 7.35.6, 7.35.11, 8.16, 9.37.9, 25.9.11, 25.24.2, 25.38.2, 28.26.6, 29.6.12, 31.23.5, 31.41.11, 33.48.8, 35.27.6, 36.18.8, 36.24.3, 40.4.10, 40.14.4, 40.14.11, 42.15.10, 42.16, 44.33.9; Tib. 2.6; Prop. 2.26.31, 2.32.14, 4.8.59; Ov. *Ep.* 14.69, *Met.* 7.186, 9.471, 11.251, 12.317, *Fast.* 3.306, *Am.* 1.9.26; Vell. 2.89.3; V. Max. 1.7.7, 2.4.6, 2.5.4. Other forms: *sopivit* Liv. 24.46.5, *sopiunt* Liv. 9.50, *sopiri* Liv. 33.45.7, *sopiretur* Liv. 8.6.2, *sopierant* Sen. Mai. *Con.* 10.6, *sopistis* Ov. *Met.* 7.213, *sopiit* Vell. 2.125, *sopiat* Sen. Min. *Dial.* 1.3.10a, *obsopiantur* Larg. 180, *sopiuntur* Larg. 181.

d. *tvám̐ ní dásyuṃ cúmuriṃ dhúniṃ ca / ásvāpayo dabhītaye suhántu*
"You put to sleep the *Dasyu Cumuri* and *Dhuni*, easy to smash for *Dabhīti*". (7.19.4cd)[27]

e. *ásvāpayan nigútaḥ*
"He put the challengers to sleep." (9.97.54c)

f. *ásvāpayat dabhī́taye sahásrā triṃśatáṃ hatáiḥ*
"(Indra) put to sleep thirty thousand (Dāsas) with his blows (4.30.21ab)."
(translations from Jamison and Brereton 2014)

There are no instances of the participle.[28] Of course the absence of the participle of the causative is not surprising since, as Stephanie Jamison has shown (1983:214), the association of the *-itá-* participle with the causative is an innovation and only *in statu nascendi* in Vedic, but the nearly synonymous *suptá-* 'sleeping' first appears only in the *Atharva Veda*. Thus there is nothing about the situation of sleeping that should necessarily prefer the past participle.[29]

6. If there is no semantic justification, then the predominance of *sōpītus* must be morphological. When we examine the passages with *sōpītus* in this light, we note that *sōpītus* is almost always used as an attributive adjective. There are only two examples of *sōpītus* combined with the verb *esse* in what should ostensibly be the perfect passive.[30] If *sopitus est* were a verb form we would expect it to mean 'has been put to sleep', i.e. 'died', but this is not what the passages mean. Lucr. 3.1038, (5h) above, *eadem aliis*

[27] Cf. the alternative formulation of the same event at RV 2.15.9a *svápenabhyúpyā cúmuriṃ dhúniṃ ca* "Having scattered *Cumuri* and *Dhuni* with sleep . . ."

[28] Dieter Gunkel points out to me that the rather different generic and textual structure of the *Rig Veda* makes this point less than compelling and suggests examining the Latin distribution of the antonyms meaning 'to rouse from sleep'. The verb *suscito* is used in this meaning seven times in Republican Latin, always in some form of the present stem: Pl. *Mil.* 689 *suscitet*, *Mo.* 372 *suscita*, *Ru.* 921 *suscitet*, Var. *Men.* fr. 161 *suscitat*, *Men.* fr. 259 *suscitat*, Cat. 80.4 *suscitat*, Cic. *Tu.* 4.19.44 *suscitari*. Note also that if one examines the dates of attestation for the *infectum* vs. perfect passive participle for causative verbs in Latin, one finds that the past participle is either contemporaneous with the *infectum* stem or younger. There are no cases where it is attested earlier and certainly not in such an overwhelming ratio. In the following cases the fourth principal part is significantly younger than the *infectum* stem: *aboleō* 'efface', *dēleō* 'destroy', *foveō* 'keep warm', *mordeō* 'bite', *mulceō* 'stroke', *mulgeō* 'milk', *sorbeō* 'suck in', *vegeō* 'stir up'.

[29] Andrew Garrett suggests the following scenario to me: if *sōpītus*, originally the past passive participle of the causative verb, has developed the meaning 'asleep', then the numerical predominance of this form can be explained by the fact that saying someone is asleep is in some way a more basic and therefore more frequently occurring description of reality than describing a situation where someone or something causes another person to go to sleep. This seems undeniable, but given the fact that there *are* circumstances in Old Latin where the situation "X makes Y sleep", in both atypical and prototypical senses, is described (see §2 above), the failure of *sōpīre* to appear in these contexts is significant. One could argue that the verb was virtually moribund or replaced by the compound *cōnsōpīre*, only to be revivified subsequently, but this account is more complicated than the one argued for here.

[30] At Lucr. 3.904–5 *tu quidem ut es leto sopitus, sic eris aevi / quod superest cunctis privatu' doloribus aegris*, the predicate of *es* is *privatus*. Cf. W. E. Leonard's translation (1921): "O even as here thou art, aslumber in death, so shalt thou slumber down the rest of time, released from every harrying pang."

sopitu' quiete est describes how Homer sleeps in quiet like all the other lesser poets. *Sopitu' quiete est* means not "he was put to sleep in rest," but "he is asleep in rest." On the other hand, in Livy 1.41.5, (5m) above, Tanaquil reports falsely that Tarquin had been stunned by a sudden blow (*sopitum fuisse regem subito ictu* standing for direct *sopitus fuerat*) but that the wound was not serious and that he had now come to (*iam ad se redisse*). The most natural interpretation for this passage is that *sopitum fuisse* refers to a state which had been entered into earlier (*sōpītum*) but had subsequently ended (*fuisse*). This suggests that in Livy's usage the form *sōpītus* had at least some of the aspectual features of a verbal form.

7. The pattern displayed by *sōpītus* is not unparalleled in Latin. For example, the early predominance of *sōpītus* is paralleled by the form *operātus* 'busy', often identified as the perfect passive participle of the verb *operor* 'work at'. In fact *operātus*, as was first argued clearly by Postgate (1899), is denominative to *opus* or *opera* 'work' and it is only with Pliny the Elder that finite forms have been backformed from the reinterpreted denominal adjective. Another well-known case is *armō* 'to fit with arms'. Here the participle *armātus* is well-attested in Old Latin (Pl. *Bac.* 942, Cat. *hist.* 93),[31] but unambiguous verbal forms do not appear until a generation later in the works of Cassius Hemina.[32] This suggests a possible explanation for the peculiar distributional facts about this "verb". *Sōpītus* is not in fact a passive participle to an old and interesting Narten causative, but instead is a possessive denominal adjective to an equally interesting but unattested *i*-stem noun **su̯ōpi-*. The perfect *active* form *sōpīvī*, found in the fragment of Republican tragedy discussed above, was the natural first step after the reanalysis of *sōpītus* as perfect *passive* participle.

8. Before turning to the further derivational history of *sōpītus* we must discuss the facts about *cōnsōpiō*. The profile of this verb is quite distinct from *sōpītus*. It has clear present-stem forms already in the Republican period (*consopit* Lucr. 6.792, *consopiri* Cic. *Tusc.* 1.117). When *cōnsōpītus* is combined with *est* the meaning is clearly that of the perfect passive (Cic. *Div.* 2.135):

(9) Alexander adsidens somno est consopitus
"Alexander while seated was overcome with sleep."

Cōnsōpītus is combined with a personal agent (Cic. *Tusc.* 1.92):

[31] Though not quite as well-attested as is usually thought. For the example quoted by the *OLD* from Enn. *scen.* 275 see §4 above.

[32] In fact, the case of the other verb 'to cause to sleep', *sopōrō sopōrāre*, may be another instance of a reinterpreted denominal adjective. Here too the "participle" is the predominant form, occurring twice in Vergil (*A.* 5.854, 6.390) and once in Ovid (*Am.* 1.9.21) before the first clearly verbal form appears in Celsus 2.2.31 (*soporatur*) and Scribonius Largus 180.85 (*soporat*). Up to Apuleius *soporatus* is attested 8 times vs. 6 times for all other forms of the verb. For some further examples of verbs backformed from denominal adjectives in *-to-*, see Leumann 1977:267 and Panagl 1992:331–3.

(10) a qua (Luna) consopitus (Endymion) putatur
"By whom he is thought to have been put to sleep"

and *cōnsōpit* has causative meaning in Lucr. 6.792:

(11) nocturnumque recens extinctum lumen ubi acri
nidore offendit nares, consopit ibidem
concidere et spumas qui morbo mittere suevit. (6.791–3)
"A recently extinguished night light when it strikes the nostrils with its
sharp smell immediately renders unconscious
the one who was accustomed to fall ill and foam."

Lucretius is describing how the acrid odor of a recently extinguished lamp may induce a fit (*cōnsōpit*) in an epileptic. How can we explain the coexistence of the non-verbal *sōpītus* and the verbal *cōnsōpiō*? The following account seems most economical: *sōpītus* 'asleep' was reanalyzed as a participle, but since, as a result of its derivational history, it did not explicitly convey the aspectual characteristics of a perfect passive participle, the form *cōnsōpītus* was created with the actional prefix *con-*, which added the nuance of "transformation" (cf. *cōnsuēscō* 'get accustomed to', *cōnficiō* 'bring to completion', *comedō* 'eat up').[33] This disambiguated this *-ītus* as a verbal form and from *cōnsōpītus* 'having fallen asleep' a present stem *cōnsōpīrī* 'to sleep' was created, as in Cic. *Tusc.* 1.117:

(12) Quid melius quam in mediis vitae laboribus obdormiscere et ita coniventem
somno consopiri sempiterno?
"What could be better than to go to sleep in the midst of life's labors and so
closing one's eyes sleep in eternal slumber?"

and finally a causative active was created which we see in Lucretius' *consopit.* The creation of a causative active 'to make sleep' from a middle 'to be asleep' can be paralleled by the history of the Greek verb κοιμάομαι ~ κοιμάω. This verb is attested with predominantly middle and passive endings in Homer in the meaning 'fall asleep, lie down' (36 times by my count). Active forms with the meaning 'lull, put to sleep' are limited to 7 instances of the *s*-aorist (*Il.* 12.281, 14.236, 16.524; *Od.* 3.397, 4.336, 12.372, 17.127). The first active form outside of the *s*-aorist appears in Aeschylus *Sept.* 107 (βλέφαρα μὴ κοιμῶν ὕπνωι 'not putting the eyelids to sleep').

9. If the patterns of attestation support a denominal origin for *sōpītus*, what derivational history must we assume to account for this form? A denominal adjective *sōpītus* points to a nominal base **sōpi-* < **su̯ōpi-*. The presuffixal lengthening of *-i-*, no doubt

[33] See Haverling 2009:317-8.

of deinstrumental origin, is expected, cf. *crīnītus* 'long-haired' from *crīnis* 'hair'.[34] A noun **su̯ōpi-* 'deep sleep, unconsciousness' could be explained as a substantivizing *i*-stem of the type *ravis* 'hoarseness' (cf. *ravus* 'hoarse') from **su̯ōpo-* 'sleepy', itself a *vr̥ddhi*-derivative of an *o*-stem **su̯opo-* 'sleep' probably continued in Vedic *anuṣvāpam* 'sleepily' (RV 8.97.3):

(13) *yá indra sásti avrató anuṣvā́pam ádevayuḥ*
svaíḥ ṣá évair mumurat pṓṣyaṃ rayíṃ sanutár dhehi táṃ tátaḥ
"He who slumbers sleepily not following the commandments, not following the gods, o Indra, through his own activities he will hinder his wealth from prospering. Put him far away from it." (translation from Jamison and Brereton 2014)

10. Unfortunately the intermediate step **su̯ōpo-* 'sleepy' cannot be directly supported, but we can point to evidence for a parallel derivational process within Latin. The verb *mōlīrī* (Pl. +) 'to strive, to build up' is undoubtedly related to the *i*-stem noun *mōlēs* 'a large mass, a struggle'. The meaning of the simplex verb *mōlīrī* and the meaning of its compounds are divergent in interesting ways. The simplex occurs three times in Plautus (*Bac.* 761, *Cur.* 188, *Per.* 785):

(14) Insanum magnum molior negotium
metuoque ut hodie possiem emolirier
"I'm working on a crazy big business but I'm afraid I won't be able to accomplish it today."

(15) Viden ut misere moliuntur? nequeunt complecti satis
"Do you see how they're struggling wretchedly? They can't get enough of hugging."

(16) Quia ei fidem non habui argenti, eo mihi eas machinas molitust
"Since I didn't trust him about the money, he cooked up this plot against me."

and once each in Caecilius (192),

(17) Ita quod laetitia me mobilitat, maeror molitur metu
"Just as happiness gets me going, so sadness works against me with fear."

Aemilius Paulus (*orat.* 2),

(18) Ne quid mali fortuna moliretur . . .
"Lest fate contrive some evil . . . "

[34] For the type see Nussbaum 1996.

Terence (*Hec.* 239),

(19) Et mulierum nosti moras/dum moliuntur, dum conantur, annus est.
"You know how women delay. While they're striving and trying, it's a year."

and Lucilius (294):

(20) Muginamur, molimur, subducimur.
"We mutter, we strive, we are diverted."

In Old Latin the simplex verb, with the exception of the Caecilius passage, means 'to labor to bring something about, to struggle'.[35] On the other hand, the equally old and frequent compounds have a more concrete meaning. *Dēmōlīrī/dēmōlīre* means 'to pull down (a building), to demolish' and 'to throw off (a charge)';[36] *āmōlīrī* means 'to remove obstacles' or intransitively or reflexively 'to go away', i.e. 'remove oneself'.[37] These facts can be explained by assuming that the simplex and the compound verbs are based on two different senses of the noun *mōlēs*. The compounds are based upon the sense 'heavy mass' seen for example in these lines of Accius (*trag.* 391, 402):

(21) tanta moles labitur
fremibunda ex alto ingenti sonitu et spiritu
"So great a mass slides
roaring from the deep with giant sound and breath."

(22) Molem ex profundo saxeam ad caelum erigit
"(Triton) raises up a rocky mass from the deep to heaven."

On the other hand the simplex is derived from *mōlēs* in the sense of 'struggle, contrivance' also found in Accius (*trag.* 198):

(23) Maior mihi moles maius miscendumst malum,
qui illius acerbum cor contundam et comprimam
"I must mix up a greater contrivance, a greater evil,
with which to suppress and smash his bitter heart."

This twofold matching confirms what has long been almost universally agreed on:

[35] The verb *ēmōlīrī* 'to carry through' occurs just once in Old Latin (Pl. *Bac.* 762) and is obviously a perfective to *mōlīrī* as the sentence quoted in (14) shows.
[36] Forms of *dēmōlīre/dēmōlīrī* occur once in Naevius, once in Plautus, and once in Cassius Hemina. *Admōlīrī* is attested twice in Plautus (*As.* 566, *Rud.* 599).
[37] The verb *āmōlīrī* is found six times in Plautus, two times in Pacuvius, once in Accius, and once in Terence (*An.* 707).

mōlīrī is a denominative[38] to the *i*-stem *mōli-*.[39] It is not immediately obvious on general or philological grounds which of the two basic meanings 'weight' or 'struggle' is older. Ernout and Meillet favor a development from 'chose écrasante' to 'difficulté écrasante', but this may simply be due to a presumption in favor of semantic change from concrete to abstract.[40] Comparative evidence settles the case.

11. The Greek form *μῶλος*, predominantly in the line-final formula *μῶλον Ἄρηος* 'turmoil of war' (*Il.* 2.401, 7.147, 16.245, 18.346),[41] but also three times outside the formula (*Il.* 17.397, 18.288, *Od.* 18.233), appears to mean simply 'struggle', referring one time to the struggle between the disguised Odysseus and Irus (*Od.* 18.233). The Law Code of Gortyn attests a denominative verb (*ἀνφι-*)*μōλίω* (< *mōléō*) 'contend legally, bring a case' and the compound *ἀντίμōλος* 'legal opponent' (6.25). Hesychius offers *μ⟨ω⟩λεῖ· μάχεται* 'fights', *ἀντιμωλία δικὴ εἰς ἥν οἱ ἀντίδικοι παραγίγνονται* 'a law case at which the opponents are present', and *μωλήσεται· μαχήσεται* 'will fight'. The Greek forms clearly support the antiquity of the meaning 'struggle' and not 'weight'.

12. Many scholars have seen in the Greek and Latin forms just discussed extensions of the root *meh$_3$- (*LIV*^{2} 425) 'Mühe bereiten, zur Last fallen', continued in OHG *muoen* 'to make tired', Go. *afmauiþs Ga.* 6.9 'growing weary', etc.[42] There can be no serious semantic argument against this connection, but phonology excludes it. Latin *molestus*, with a short *o* in the first syllable, cannot be explained from any ablaut grade of a root *meh$_3$-. Nor is there any phonological process to shorten a long *ō*.[43] The best explanation so far offered—that *mōlestus* was remade to *molestus* by contamination with *modestus*—is a stretch, since the association between *modestus* 'restrained, moderate' and a putative *mōlestus* can hardly have been as strong as that between *mōlestus* and *mōlēs*.[44] Greek too has evidence pointing to a short vowel in the Hesychian gloss

[38] But *mōlīrī* is the sole denominative to a noun of this type. The form *saepiō* 'to fence', which might appear to be a denominative to *saepēs* 'fence', is probably a primary verb, as is suggested by the perfect system *saepsī*, *saeptus*. The one notable exception to this quasi-unanimity is Meillet (Ernout-Meillet p. 410), who suggests that *mōlīrī* was deverbal and a parallel to *sōpīre*.

[39] I do not have the space to examine the *-ēs*, *-is* type here. *Mōlēs* is most likely an instance of a reinterpreted *i*-stem plural (Weiss 2011:44). Note how Gk. *μῶλον Ἄρηος* (*Il.* 2.404) corresponds to or was the model for Lat. *mōlēs Martis* (Gell. 13.23.2), MÔLIBVS MÂRTIS (*Feriale Cumanum*, CIL 1, p. 229) the plural name for the divinities hypostasizing the turmoils of war. For another view on *mōlēs Martis* see Rocca forthcoming.

[40] *Molestus*, *-a*, *-um* (Pl. +) 'annoying' is consistent with either original meaning. Cf. ModE *burdensome* ← *burden* and *toilsome* ← *toil*. Alan Nussbaum suggests to me that *remelīgō* (Pl. +) 'cause of delay' is to be derived from the same root, but this too is consistent with either sense.

[41] Cf. Arch. fr. 3. l. 2 *μῶλον Ἄρης*. Forms of *μῶλος* naturally also occur in the imitators of Homer. On this formula see most recently Barnes 2009:7–9, who favors a connection of *μῶλος* with the root *melh$_2$- 'grind'. Such a connection would be consistent with my proposal, but it does not seem to be unavoidable.

[42] TB *mäsk(ā)-* 'be difficult' and TB *amäskai* 'with difficulty', *mäskwe* 'difficulty' probably also belong here. See Peyrot 2011. The connection of Ru. *máju májat'* 'tire out' (tr.) is uncertain.

[43] See Schaffner 2005:358, who opts for etymological separation of *molestus* and *mōlēs*. Dybo's Law is unlikely in this case because *moles-* on any analysis of its prehistory probably continues a root-accented form.

[44] The one instance of a close collocation of *modestus* and *molestus* that I have been able to find appears

μόλος· πόνος. μάχη. φρύαγμα 'toil, fight, snorting'.[45] The adverb *μόλις* 'hardly' (Aesch. +) also confirms the original short vowel in the root.[46] Thus the root in question must be *(H)mel(H)-.

13. If this is the root shape, then the long vowel can only be the result of morphological lengthening, i.e. *vr̥ddhi*. The most economic account would appear to be as follows: *mólos* 'toil' (Gk. *μόλος*) made a vr̥ddhied genitival adjective *mōlos* 'of toil' and this was then substantivized in Greek by zero-derivation (*μῶλος*) and in Latin by *i*-stem nominalization (*mōlēs*). The path from *mólos* to *mōlos* to *mōlis* is identical to that which I have hypothesized lies behind *sōpītus*.

Abbreviations

Ernout-Meillet = Ernout, Alfred, and Antoine Meillet. 1985. *Dictionnaire étymologique de la langue latine: Histoire des mots*. 4th ed. Paris: Klincksieck.

LIV^2 = Kümmel, Martin, and Helmut Rix (eds.). 2001. *Lexikon der indogermanischen Verben: Die Wurzeln und ihre Primärstammbildungen*. 2nd ed. Wiesbaden: Reichert.

OLD = Glare, P. G. W. (ed.). 1982. *Oxford Latin Dictionary*. Oxford: Oxford University Press.

TLL = *Thesaurus Linguae Latinae*. Stuttgart and Leipzig (1900–1999), Munich and Leipzig (2000–).

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to be accidental (Cic. *Att.* 9.19.1): *ea quae etiam cum a bonis viris, cum iusto in bello, cum modeste fiunt, tamen ipsa per se molesta sunt* … "Those things which even when they are done by good men, in a just war, with moderation are in themselves troublesome …" *Remelīgō*, where the *e* of the second syllable must be original by the so-called *alacer* rule (Weiss 2011:118), if correctly connected, confirms this picture.

[45] Alexander Lubotsky reminds me that *μόλος* could formally continue *m̥h$_3$lo- with Beekes' Law, but an accented zero-grade in a thematic verbal abstract is unexpected.

[46] The adverb *μόλις* is normally treated with some suspicion since it is post-Homeric and appears to be a perfect synonym for the Homeric and later form *μόγις*. The form *μόλις* is first attested in Aeschylus and appears to be predominantly Attic. If we can trust the manuscripts—or to be more precise, the collective decisions of the editors—Homer and Herodotus never use *μόλις* (vs. *μόγις* 5× in Homer, 10× in Herodotus). Thucydides, Aristophanes, and Xenophon, on the other hand, never use *μόγις* (vs. *μόλις* 14× in Aristophanes, 23× in Thucydides, 17× in Xenophon). Plato strangely departs from this general pattern preferring *μόγις* 51× vs. *μόλις* 8×. Given this distribution, there is no particular reason to doubt the reality of this form. Even granting for the sake of argument that *μόλις* somehow replaces *μόγις*, that hypothesis would still probably require the prior existence of a stem *mol-. The connections sketched out here were hinted at already by Vine (2011:280).

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So What Is It to Be?

MARTIN WEST†

1 Introduction

My thesis is not a new one. But perhaps my selection of evidence and presentation of the argument will refresh it and succeed in holding for a few minutes the interest of the warm-hearted recipient of this volume, and a few of its colder-hearted readers.

What we generally refer to as the verb 'to be', reconstructed as *$h_1$es-, is found everywhere in the Indo-European language family. But what does it mean, to 'be'? Can we reach a clearer idea of the word's original sense and application?

In the historical IE languages it is convenient to distinguish two basic uses: as a copula and in an absolute, existential sense. By a copula we mean (in this context) a verbal form serving to link a subject to a non-verbal predicate.

Why was such a link sought, seeing that many IE languages, including all the ancient ones, are happy with purely non-verbal predicates, or actually prefer them to using the copula? The nominal construction was satisfactory so long as there was no need to mark the predicate for tense or mood. But when that need arose, it was most easily met by using a verb form. Even when there was no such need, there was always potential pressure to conform to the dominant syntactic pattern of subject + verbal predicate, and a semantically pale verbal copula offered the means to do so.[1]

It is generally agreed that the copulative use of *$h_1$es- is likely to be secondary. A similar development can be observed with other verbs in various languages (cf. Delbrück 1900:12). A verb with a rather broad meaning is often combined with a nominative predicate, as in English expressions like *I stand corrected*, *you are running scared*, *she grows lovelier*, and *we are sitting pretty*. It may then happen that the verb weakens to become a mere copula employable under certain conditions. In Greek, for example, *γίγνομαι*, *πέλω*, *ὑπάρχω*, *κυρέω*, *τυγχάνω*, and *φύω* all exhibit this trend. In Spanish *estar* has displaced *ser* as the copula used for a temporary as opposed to a permanent condition.

[1]Cf. Meillet 1937:357: the verb 'to be' ('être') "ne figurait en indo-européen que par suite de l'importance qu'y a prise le type verbal d'une manière générale, importance qui a déterminé l'emploi obligatoire d'une forme verbale dans certains cas."

For all these verbs we can define a primary sense: *γίγνομαι* 'be born', *estar* 'stand', and so on. So if *$h_1$es- belongs in the same category, what was its primary sense?

In the later nineteenth century the standard view, following Curtius (1866:337), was that it was 'breathe, be alive'. So Grassmann (1873:145) on *as-* ("Die ursprüngliche Bedeutung 'sich regen, leben' tritt nur in Ableitungen [ásu, ásura, ásṛj] hervor. Aus ihr hat sich der Begriff des Seins entwickelt") and similarly Ebeling (1885:1.359), who gives 'vivo et vigeo' as the first meaning of *εἰμί*.

After Curtius' argument crumbled, 'exist' was promoted to the status of primary or at any rate oldest determinable sense. So Delbrück (1900:13), "Die Urbedeutung dieses Verbums ist unbekannt, die älteste belegbare ist 'existieren'"; Brugmann (1904: 627), who repeats Delbrück's formulation almost verbatim; Meillet (1937:359), "le verbe *es-, dont la valeur propre est d'affirmer l'existence"; Benveniste (1960:114), "le sens en est 'avoir existence, se trouver en réalité'"; and Watkins (1967:191), 'really, actually be, exist'.

But what then is the relationship between the existential sense and the copulative function? According to Brugmann, "*die erde ist eine kugel* = *die erde existiert als kugel.*" But does it exist natural to say "the President of the United States exists Barack Obama"? And how likely does it exist that the Proto-Indo-Europeans felt any need for a word meaning 'exist', seeing that philosophical questions about being and non-being arose, so far as we can see, only much later?

Two other views of the primary sense of *$h_1$es- enjoyed currency in the last century. They may be designated the veridical and the adessive. According to the first, the basic meaning was 'be really so, be a fact'. I have just quoted Benveniste's formulation 'avoir existence, se trouver en réalité'. He continues, "et cette 'existence', cette 'réalité' se définissent comme ce qui est authentique, consistant, vrai." In support of this interpretation he refers to the evidently ancient use of the participle and derived forms to mean 'true, genuine'.[2] This is also the position embraced by Charles H. Kahn in a massive study of the Greek verb (Kahn 1973:297–370).

According to the adessive view, the basic meaning was 'be there, be available'. This already appears, awkwardly conflated with the old Curtius etymology, in Kühner and Gerth 1898:1.3—*εἰμί*, "das eigentlich atme, lebe, bin vorhanden bedeutet"—and then more unequivocally in Delbrück 1900:11: "da die Kopula ursprünglich ein Verbum mit materiellem Bedeutungsinhalt war, also z. B. *est* bedeutete: 'ist vorhanden'." On the development of the existential and copulative uses from the postulated primary sense 'vorhanden sein, sich befinden', Klowski (1975:745) is a little more explicit: "Aus dieser lokativen Bedeutung hat sich einerseits durch Betonung der Verbbedeutung in bestimmten Zusammenhängen die existentielle Bedeutung entwickelt und

[2]Hitt. *aśant-* 'real, true' (Puhvel 1984:289); Gk. *τὸν ἐόντα λόγον*, *τῶι ὄντι*, etc. (LSJ s.v. *εἰμί* A III); PIE **sn̥t-yó-* > Skt. *satyá-*, Av. *haiθiia-*, OP *hašiya-*, Goth. *sunja* (fem.); PIE **sónt-o-* > ON *sannr*, OHG *sand*, OE *sōð*. On the development to 'guilty' cf. Watkins 1967.

andererseits in Zusammenhängen mit Prädikatsnomina die statische, sonst aber bedeutungslose copula." For the derivation of existential from locative sentences (*there is*, *il y a*, *c'è*, etc.), Bennekom (1984:261) refers to observations by linguisticians, and to the Platonic and Aristotelian axiom that whatever exists must have a location.[3]

Martínez Marzoa (1974) offers a slight modification of the adessive interpretation, according to which 'be present' carries the connotation of 'be manifest, appear', functioning either as copula or as an absolute form.[4]

In what follows I shall collect evidence from the ancient languages to show that in all of them continuators of *$h_1$es- were widely used in the sense of 'be there, be present, be available', and I shall argue for this as the verb's oldest recoverable meaning.

2 Hittite

Such a sense of Hitt. *eš-*, beside the simple 'be', is registered explicitly in the dictionaries. Friedrich (1952–66:42) gives 'sein, vorhanden sein; sich befinden'; Tischler (2008:36), ditto; Ünal (2007:115), 'to be, to exist, stay, live, be present'; and Kloekhorst (2008:250), 'to be (copula); to be present'. In Puhvel 1984:285–9 I find the following relevant examples:

> KBo 5.8 ii 24–5
> NU.GÁL ***kuiški ēšta*** "There was no one there."

> KUB 19.37 iii 45–6
> ***kuēš apan ešir, n=an arḫa dalaḫḫun, n=at ešir-pat*** "those who were (left) behind, I left them alone, and they were (remaining) there." The phrase *apan eš-* can also mean 'be behind, back up, support', where *eš-* must carry the connotation of being *there*.

> KBo 12.126 i 27
> ***nu=šši*** [GIŠ]BAN-*ŠU* ***ēšzi*** "he has his bow," literally "his bow is there for him." (Cf. below on Vedic.)

In the palace building ritual in KUB 29.1 (García Trabazo 2002:477–504) i 50–ii 4 we find:

[3]Pl. *Ti.* 52b, Arist. *Ph.* 208a29. On the adessive use cf. also Kahn 1966:257–8, 1973:375–85, and 2004:399–400, as well as Ruijgh 1979:55–65, who quotes a number of pertinent Greek examples.

[4]Martínez Marzoa 1974:166: 'manifestación, patencia, presencia, darse'. This sense "es inherente a la cópula como tal, a la constitución de una relación predicativa, no a la presencia o ausencia de εἶναι."

> *Mān=ma ḫaššus andan parna uezzi, nu Ḫalmišuiz ḫaran ḫalzāi: "Eḫu=ta, aruna pieimi. Mān pāiši=ma, nu uliliya tiyešna šūwaya, kuyēš ašanzi." Apāšš=a apa tezzi: "Šuwayanun=wa, nu=wa Išdustayas Papayaš, katereš karūelēš šiūnes kūšeš, ḫālianteš ašanzi."*
> And when the king comes into his house, the Throne goddess calls an eagle: "Hey! go north for me. When you go, spy out the forest greenery (and see) who are there." He (goes, returns, and) replies, "I have spied it out; Isdustaya and Papaya, the ancient nether divine maidens, are there kneeling."

3 Vedic

In discussing the primitive meaning of the IE verb Delbrück relied entirely on Vedic examples, which he took to support the sense 'exist'. His first passage is RV 8.100.3a–c:

> *prá sú stómam bharata vāyajánta Índrāya satyaṃ, yádi satyam* ***ásti****.*
> *néndro* ***astī́ti*** *néma u tva āha.*

He translates: "bringt doch wetteifernd dem Indra ein Loblied dar, ein wahrhaftiges, wenn er in Wahrheit existiert. 'Indra existiert nicht', so sagt mancher." Geldner (1951) has, "wenn es Wahrheit ist! 'Es gibt keinen Indra', so sagt manch einer." Jamison and Brereton (2014) have, "Proffer praise as you all seek the prize—real praise to Indra, if he is the real thing. 'Indra does not exist,' so says many a one." However, the question about Indra is raised in the context of the ritual event, and it can be interpreted as a question about his presence or availability rather than about his absolute existence. Delbrück does not quote the fourth line of the stanza, which goes, ***ká īṃ dadarśa, kám abhi ṣṭavāma?*** Nor the next stanza, in which Indra himself refutes the doubter: ***ayám asmi jaritaḥ, páśya mehá!*** We may render the passage:

> Bring Indra a praise-song eagerly, a true one, if he is truly there.
> "Indra is not there," says so-and-so. "Who has seen him? Whom are we to praise?"
> "Here I am, singer, look at me!"

In Delbrück's next two examples *ásti* is linked with a dative pronoun in the familiar IE construction expressing possession, which we have already seen in one of the Hittite examples. RV 1.37.15:

> ***ásti hí ṣmā mádāya vaḥ***
> For you have (the wherewithal) to carouse. (I.e. it is there for you, at your disposal.)

So too 8.67, where after 6a–c,

*yád vaḥ śrāntaya sunvaté várūtham **ásti**, yác chardíḥ,*
ténā no ádhi vocata
What cover you have for the toiling soma-presser, what protection,
with that intercede for us,

the pronoun is again to be understood in 7a:

***ásti** devā aṃhór urú,* ***ásti** rátnam ánāgasaḥ*
There is (in your power), gods, freedom from strait,
there is enrichment of the innocent one.

In such cases *ásti* is equivalent to Lat. *praesto est* 'is at hand', 'is available'. In translating his next three examples (1.40.8, 4.18.4, 5.31.2) Delbrück himself uses the expression 'ist vorhanden'. He continues, "Oft steht ein Wort dabei, welches den Ort des Vorhandenseins angiebt," quoting 6.19.12, 8.75.15, and 5.74.6 as instances.

Grassmann, as I noted earlier, supposed the original meaning of *as-* to be 'sich regen, leben', while allowing that this does not appear in the actual usage of the verb. When he starts to classify its ostensible meanings, they go "1) *sein, da sein, vorhanden sein, existieren* . . . 2) *bereit, gegenwärtig sein, zur Hand sein* . . . 3) an einem Orte *sein, sich* dort *befinden* . . . "

I submit that we should always be on the lookout for the contingent sense 'be there, be available'. I do not want to deny that the verb may sometimes have a pure existential meaning. I daresay many unimpeachable examples can be produced. One place where one naturally thinks of looking is in the famous cosmogonic hymn, 10.129. It begins:

.1 *násad **āsīn** nó sád **āsīt** tadā́nīṃ,* ***nā́sīd** rájo nó víomā paró yát.*
*kím ā́varīvaḥ, kúha, kásya śármann? ámbhaḥ kím **āsīd** gáhanaṃ gabhīrám?*
.2 *ná mṛtyúr **āsīd**, amṛ́taṃ ná tárhi, ná rā́triyā áhna **āsīt** praketá.*
ā́nīd avātáṃ svadháyā tád ékaṃ: tásmād dhānyán ná paráḥ kíṃ canā́sa.
.3 *táma **āsīt** támasā gūḷhám ágre, apraketáṃ saliláṃ sárvam ā idám . . .*

.1 Neither non-being nor being was there at that time,
there was not the air-space, nor the heaven that is beyond (it).
What was it moving forward? Where? In whose charge?
Was it water there, that deep covert?
.2 Death was not there, nor deathlessness then;
of night and day there was no signpost.
It breathed windless, autonomous, that One:
other than it, there was nothing there.
.3 Darkness hidden in darkness was there in the beginning;
this All (was) unsignposted ocean.

Now, this is not just a catalogue of things that did or did not exist at the beginning of the world. The alternating negative and positive statements together make up a description of that primal scene. 'There was' shades into 'was there' and 'there was not' into 'was not there'; the 'there' in the latter formulations tips us over from a purely abstract idea of existence to something more contingent, presence in a particular context. So even in this most philosophical text we may consider understanding *as-* as 'da sein, vorhanden sein' rather than simply as 'sein'.

4 Iranian

The first meaning given for *ah-* by Bartholomae (1904:266–7) is 'sein sva. da sein, vorhanden sein, existieren; es gibt'. In the Old Avestan texts its use as a simple copula is still quite restricted. It does not occur in the *Gāthās* in the third person singular or plural of the present tense, and it may be omitted even in first- and second-person statements (West 2011:3–4). We do find *astī* twice in the short Aṣ̌əm Vohū mantra (Y 27.14), and here we may suspect that it is something more than a copula. The articulation and interpretation of the text are uncertain, but in line with my thesis it might be punctuated and understood thus:

aṣ̌əm vohū, vahištəm astī:
uštā astī, uštā ahmāi,
hiiaṱ aṣ̌āi vahištāi aṣ̌əm.
Right is good, the best thing there is (available);
it is there (for us) as desired, for itself as desired,
what(ever) best Right sees as Right.

The following Gāthic passages are less ambiguous:

29.5ab *aṱ vā ustānāiš **ahuuā** zastāiš frīnəmnā Ahurāiiā,*
mə̄ uruuā gə̄ušcā aziiā̊, hiiaṱ Mazdą̄m duuaidī frasābiiō.
But we two are (here) with outstretched hands propitiating the Lord,
my soul and the milch cow's, as we put Mazda to our questions.

29.9c *kadā yauuā huuō **aŋhaṱ**, yə̄ hōi dadaṱ zastauuaṱ auuō?*
When will he ever be (there), he who will give him physical assistance?

31.16a *pərəsā auuaṱ, yaθā huuō yə̄ hudānuš . . .*
*. . . yadā huuō **aŋhaṱ** yā.ṣ̌iiaoθnascā.*
I ask this: how that munificent man . . .
. . . when he will be (there), and how acting.

43.16cd *astuuaṯ aṣ̌əm xiiāṯ, uštānā aojōŋhuuaṯ;*
x^və̄ng darəsōi xšaθrōi xiiāṯ ārmaitiš.
In bodily form may Right be (present), vigorously strong;
in sight of the sun with Dominion may Piety be (present).

50.7d *mahmāi xiiātā auuaŋ́hē.*
May ye be (there) for my succour.

In several passages the subjunctive *aŋhaṯ or aŋhatī* is used in predicting how something will turn out, as in 29.4c *aθā [nə̄] aŋhaṯ, yaθā huuō vasaṯ* "it will be so [for us] as he wishes," 30.11c *aṯ aipī tāiš aŋhaitī uštā* "then thereafter it will be as desired," 31.5c *tācīṯ . . . yā nōiṯ vā aŋhaṯ aŋhaitī vā* "those things that will not be or will be," 48.4d *θβahmī xratāu apə̄məm nanā aŋhaṯ* "in thy sapience at the last it will be differently" (for the adherents of good or bad thought), and 48.9d *vīdiiāṯ . . . yaθā hōi aṣ̌iš aŋhaṯ* "may he know how his reward is to be." 'Be' in these passages implies more than just achieving existence in a particular form. It refers to how future outcomes will present themselves (*vorhanden sein*) and be experienced by those affected.

In one passage of the Behistun inscription (DB iv 60) Darius claims that

Auramazdā-maiy upastām abara utā aniyāha bagāha tyaiy ***hatiy****.*
Auramazda brought me assistance, and the other gods that there are.

Presumably the intention is not to contrast a set of gods who exist with another set who do not. In another inscription (DPd 13, 22, 24) it is

manā Auramazda upastām baratuv hadā viθaibiš bagaibiš.
Let A. bring me assistance together with the gods of my house.[5]

So the gods *tyaiy hatiy* are probably the ones "that are there (for me)," "my gods." Zoroaster uses a similar expression when he says he will worship under their own (true) names those (powers) *yōi åŋharəcā həṇticā* "who have been and are" (Y 51.22b).

5 Greek

In Ebeling's Homeric lexicon, as mentioned earlier, the first meaning given for *εἰμί* is 'vivo et vigeo'. There are certainly passages where it distinguishes living from dead persons. *οὐ γὰρ ἔτι . . . ἦσαν*, it is said of the sons of Oineus (*Il.* 2.641 [cf. 642], *Od.* 1.289), and people of the future are *ἐσσόμενοι ἄνθρωποι* (*Il.* 3.287, 460) or just *ἐσσόμενοι* (2.119, 6.358, etc.). Yet it is not the Homeric view that the dead do not exist. They exist, but in another place. In *Od.* 24.263–4 Odysseus, concealing his identity from his father Laertes, tells him how he asked someone he had met on the way

ἀμφὶ ξείνωι ἐμῶι, ἤ που ζώει τε καὶ ***ἔστιν***
ἦ' ἤδη τέθνηκε καὶ εἰν Ἀΐδαο δόμοισιν.
About my friend, whether he is alive and *ἔστιν*
or is now dead and in Hades' halls.

As *ἔστιν* is contrasted with being in Hades, it evidently means 'is here in this world' (Klowski 1967:139). In *Il.* 22.378–84 Achilles proposes a renewed assault on Troy to see whether, now that Hector has fallen, the Trojans will give in or whether they will stand fast *καὶ Ἕκτορος οὐκέτ' ἐόντος* "even though Hector no longer *ἔστι*." He says this standing over Hector's body, to men who are gleefully stabbing it, and at the end of his speech "he began to do unseemly things to lordly Hector" (395). So Hector has not ceased to exist. *καὶ Ἕκτορος οὐκέτ' ἐόντος* means, in effect, "even with Hector no longer there (to help them)."

When Laertes learns that his son is alive before him and has killed the suitors of Penelope, he exclaims (*Od.* 24.351):

Ζεῦ πάτερ, ἦ ῥα ἔτ' ***ἔστὲ*** *θεοὶ κατὰ μακρὸν Ὄλυμπον.*
Father Zeus, in truth you gods still exist/are still there on Olympus.

In several places we find the phrase *θεοὶ αἰὲν ἐόντες*, usually rendered "the gods who are forever" or "the everlasting gods." We cannot quarrel with the translation, but we should remember that the Homeric gods do not, like those of Epicurus, exist in a separate realm unconnected with our world: they are there to observe, react to, and intervene in human affairs. To speak of their eternal existence is to remind the hearer that they are a force in our present world and not to be forgotten. We might translate "the gods who are always there." It is the same when Hesiod warns the local squirearchs that there are gods present among us taking note of perversions of justice (*Op.* 249–56):

ἐγγὺς γὰρ ἐν ἀνθρώποισιν ***ἐόντες***
ἀθάνατοι φράζονται . . .
τρὶς γὰρ μυρίοι ***εἰσὶν*** *ἐπὶ χθονὶ πουλυβοτείρηι*
ἀθάνατοι Ζηνὸς φύλακες θνητῶν ἀνθρώπων . . .
ἣ δέ τε παρθένος ***ἐστὶ*** *Δίκη, Διὸς ἐκγεγαυῖα . . .*

Note the qualification of *ἐόντες* by "nearby, among mankind" and of *εἰσίν* by "(here) on earth"; with *ἐστὶ Δίκη* we understand similarly, "is here present in our world."

Ebeling's second heading (1885:1.360) is 'il y a, es gibt'. From the many passages

[5] Elsewhere (DSe 50, XPb 27, etc.) it is simply *hadā bagaibiš*.

cited I will select a very few. At *Od.* 10.193 Odysseus, finding himself and his men on an unknown island, invites them to consider

> εἴ τις ἔτ' **ἔσται** μῆτις· ἐγὼ δ' οὐκ οἴομαι **εἶναι**
> whether there is to be any further strategy (for us); I do not think there is any.

ἔσται/εἶναι means 'be available to us'. Similarly at *Od.* 24.486 Zeus decrees an end to the dispute between Odysseus' family and those of the slain suitors. Let them be friends as before,

> πλοῦτος δὲ καὶ εἰρήνη ἅλις **ἔστω**,
> let prosperity and peace be (there for them) in abundance.

It would have made little difference to these examples if a dative pronoun had been added. At *Il.* 22.50 Priam says that if his sons Lykaon and Polydoros are alive, he will be able to ransom them for bronze and gold, ἔστι γὰρ ἔνδον "for it is available within," while at 23.549 a similar statement is made with a pronoun included: Antilochos says to Achilles, **ἔστι τοι** ἐν κλισίηι χρυσὸς πολύς, ἔστι δὲ χαλκός. The very common construction of ἔστι with a dative to indicate possession rests on just this sense of the verb, 'is present, is available'.

Another usage expresses availability for some immediate purpose or need, as in *Il.* 2.687 οὐ γὰρ ἔην ὅς τίς σφιν ἐπὶ στίχας ἡγήσαιτο "for there was no one (there) who could lead them to the battle-lines," 9.688 εἰσὶ καὶ οἵδε τάδ' εἰπέμεν "here are these men to confirm this," *Od.* 14.496–7 ἀλλά τις εἴη / εἰπεῖν Ἀτρεΐδηι Ἀγαμέμνονι "let there be someone to tell Agamemnon" (i.e. let someone here make himself available to take the message), and 22.25 οὐδέ πηι ἀσπὶς ἔην οὐδ' ἄλκιμον ἔγχος ἑλέσθαι "there was no shield or spear anywhere (there) to take." A subject is not necessary, as ἔστι/οὐκ ἔστι is often used impersonally with an infinitive to mean 'it is possible/impossible', i.e. 'the opportunity is/is not there to . . . ' (cf. Delbrück 1900:28–9). With either the personal or the impersonal use there may be a dative to specify the party to whom the opportunity is or is not available.

We routinely say 'it is Thursday', and when we see *Od.* 2.89 ἤδη γὰρ τρίτον ἐστὶν ἔτος or D. 18.169 ἑσπέρα . . . ἦν, we naturally translate "it is now the third year," "it was evening." But what is the "it" that is Thursday or the third year or the evening? The Greek examples, at least, may be better understood as "the third year is here," "evening was at hand," as if it were πάρεστι, παρῆν; compare Catullus' *Vesper adest*. We render *Il.* 4.164 = 6.448 ἔσσεται ἦμαρ ὅτ' ἄν ποτ' ὀλώληι Ἴλιος ἱρή as "there will be a day when Ilios will perish," but it is not a matter of that day's having *existence* but of its attaining *presence*. "There will come a day" is an equally appropriate translation. At *Il.* 8.66 ὄφρα μὲν ἠὼς ἦν is not "while the morning existed," for Eos does not go out of existence after making her daily appearance. It is "while the morning was there."

I will add a couple more post-Homeric passages. One is from the *Theognidea* (515), where the poet welcomes a guest. He says he is a poor man, he "has nothing," τῶν δ' **ὄντων** τἄριστα παρέξομεν "but I will give you the best of what there is (in my house)," as if it were τῶν ὑπαρχόντων. The Homeric equivalent is παρεόντων, as in the formulaic line εἴδατα πόλλ' ἐπιθεῖσα, χαριζομένη παρεόντων, of the housekeeper who sets a generous meal before a visitor. Such a use of τὰ ὄντα was recognized more widely; cf. Pl. *Grg.* 511b ἐκεῖνον ἀποκτενεῖ, ἐὰν βούληται, καὶ ἀφαιρήσεται τὰ ὄντα "he will kill that man if he likes, and take away his property" and other passages cited in LSJ s.v. εἰμί A I.

Another case where ὤν is clearly equivalent to παρών is S. *Ant.* 1108–9. Kreon, finding himself in need of urgent action, shouts for all his servants: ἴτ' ἴτ' ὀπάονες, / οἵ τ' **ὄντες** οἵ τ' ἀπόντες "go, go, attendants, those present and those absent."

6 Latin

Latin *esse* has a similar range of uses to the Greek verb, except that it is not found for 'it is possible to . . . '. I will content myself with citing a number of passages from early writers where it clearly means 'is/was at hand'. First, one that recalls one of the Hittite texts quoted above, Turp. *com.* 194–5 Ribbeck:

> *simul circumspectat: ubi praeter se neminem*
> *uidet esse, tollit aufert.*
> At the same time he looks about: when he sees that no one but himself is (there), he picks it up and carries it off.

Out of many passages in Plautus, diligently registered by Lodge (1901–33:2.701–2), I will pick out, from a fragment quoted by Gellius 3.3.3,

> *ubi is [uenter] te monebat, esses, nisi cum nihil **erat**.*
> *nunc etiam quod **est**, non estur, nisi Soli lubet.*

A parasite is complaining that in his youth people did not set their mealtimes according to the sundial but ate when they were hungry:

> When your belly prompted you, you would eat, except when there was nothing there.
> Nowadays even what is there is not eaten except at the sun's pleasure.

Other examples include *Am.* 429 *cadus erat uini, inde impleui hirneam* "there was a jar of wine (there), I filled the jug from it," *As.* 195 *quid si non est?* "What if I haven't got (the money)?" (cf. *Aul.* 376, *Cur.* 34), *Per.* 655 *nam etsi res sunt fractae, amici sunt tamen* "for even if my fortunes are wrecked, I still have friends," and *Rud.* 841 *quin occidisti extemplo? :: gladius non erat*, "why didn't you kill him on the spot? :: There was (I had) no sword." From prose authors: Cato *Agr.* 28 *caueto, cum uentus siet aut imber, effodias*

aut feras "beware of digging (trees) up or transporting them when there is wind or rain," 120 *totum annum mustum erit* "there will be must for the whole year" (if you follow these rules), and Var. *R.* 1.11.2 *si omnino aqua non est uiua, cisternae faciendae sub tectis et lacus sub dio* "if there is no running water at all (on the site), you must make cisterns indoors and a pond in the open."

Also relevant is the idiom *quid tibi est?* or just *quid est?* (Pl. *Am.* 810, Ter. *An.* 860, etc.), meaning "what is the matter?", that is, the thing that is besetting you.

7 Conclusion

We take similar uses for granted in English. We are as likely to say *What is it?* as *What is the matter?* And someone who asks *Is there any sugar?* does not mean "Does sugar exist in the universe?" but "Is sugar available here and now?" (in this house/bar/restaurant).

But it is the pervasiveness of the adessive function in the ancient languages that guarantees its antiquity, if not its primacy. In favour of its primacy is the relative ease with which the other main uses of the verb can be derived from it. The development of the existential and copulative uses, I think, is straightforward and needs no further explanation. As to the veridical use, it is not difficult to trace a line from 'is there' to 'is manifest' and so to 'is undeniable'. Seeing is believing. "There you are," "it is staring us in the face," "es liegt auf der Hand" are all equivalent to "it is plainly so." As noted earlier, the participle of **$h_1$es-* and extended forms (**sn̥t-*, **sn̥t-yó-*, **sónt-o-*) were especially favoured in this sense, but it was not exclusive to them. A Hittite king could confess to a sinful act by saying *ēšzi=at, iyawen=at* "there it is, we did it," where "there it is" is equivalent to "it is a plain fact."[6]

The tidiest formulation is perhaps the following. From the general meaning 'be there', a series of more specialized uses developed: (1a) 'be on earth among the living'; (1b) 'be on the cosmic scene, exist' (e.g. of gods); (2) 'be in store'; (3) 'be to hand'; (4) 'be manifest, undeniable'; (5) with nominative predicate, 'be there' in a certain condition or with a certain identity (the copulative use). There is an interesting non-IE parallel in the Akkadian verb *bašû*, whose range of meaning corresponds exactly to (1)–(4) above, whereas it is not used as a copula.[7] We may take this as a further indication that the copulative use of **$h_1$es-* is contingent, not intrinsic.

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[6] Muršili's second Plague Prayer (*CTH* 378): Goetze 1929:212 §6.3, 214 §9.5 (cf. 216 §10.6 *ašān=at, iyanun=at* "it (is) true [participle of *aš-*], I did it"; cf. Watkins 1967:192–3.

[7] See the *Chicago Assyrian Dictionary*, B 144–61.

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Hittite Mediopassives in *-atta*

KAZUHIKO YOSHIDA

1 Introduction

Calvert Watkins pointed out two types of morphological change that occurred in the basic 3rd sg. mediopassive ending *-a* in the internal history of Hittite (Watkins 1969:85–7). One is the renewal *-a* to *-ta* and the other is the renewal of *-a* to *-atta*. The second change is additive: the original ending *-a* came to be doubly characterized by the addition of the *-ta* created by the first morphological change. The first morphological change is illustrated by the verb *tuḫš-* 'be cut off' which has 3rd sg. pres. *tuḫḫušta* (OH/MS) beside *tuḫša* (OH/NS), *tuḫšari* (OS). The examples that Watkins adduced for the second morphological change are *ḫuittii̯a(ti)* (OS) 'pulled' → *ḫuittii̯atta(t)* (NH/NS), *ḫalii̯a(ri)* (OH/NS) 'kneels down' → *ḫalii̯attat* (NH/NS), *laḫuu̯āri* (OH/NS) 'pours' → *laḫuu̯atari* (MH/NS), and *ḫalzii̯a* 'calls' (OS) → *ḫalzi̯atari* (OH/NS). The first three examples are, however, not good illustrations of the replacement of *-a* by *-atta*. The element *a* in *ḫuittii̯a(ti)* and *ḫalii̯a(ri)* is not an ending, but part of the suffix *-i̯a* (< **-i̯o*). The form *la-ḫu-u̯a-ta-ri* attested at KUB 13.8:8 should probably be read *la-ḫu-ut-ta-ri*, a product of medialization with the ending *-ttari* attached to the stem of the original 3rd sg. active *lāḫui*.[1] On the other hand, the fourth example clearly does show the pattern *-a* to *-atta*. The pair 3rd sg. active *ḫalzāi* and 3rd sg. mediopassive *ḫalzii̯a* probably belongs to an *i*-present with **e* : zero ablaut; cf. Jasanoff 2003:111. The 3rd sg. mediopassive *ḫalzii̯a*, which goes back to a form in **-i(i̯)-ór*,[2] was later replaced by *ḫalzii̯atari* with the old ending *-a* and the new ending *-ta*.

Other examples that unambiguously show the second morphological change are as follows:

> *ḫannari* 'decides' (OH/NS, MH/MS) → *ḫannatat* (date indeterminate)
> *nēari* 'turns' (OH/NS), *nēi̯a* (MS/MS), *nēat* (MS/MH), *nei̯at* (OH/NS, MH/NS) → *nei̯attat* (OH/NS)
> *iškallāri* 'tears up' (OH/MS) → *iškallatta* (preterite, MH/NS)

[1] See Yoshida 2007b:138–9 for a more detailed discussion of how *laḫuttari* emerged. Other examples of medialization are given in n. 12.

[2] Retraction of the accent must have occurred in *ḫalzii̯a* before the loss of final *-r* in Proto-Anatolian.

These examples strongly suggest that this replacement was still operating during the historical period of Hittite. It is particularly significant that the above three examples together with _ḫalzii̯atari_ adduced by Watkins are all _ḫi_-verbs. It is also to be noted that none of the examples is recorded in Old Hittite original manuscripts. Mediopassive verbs in _-atta_ that are recorded as such from the beginning of their attestation and therefore lack corresponding older forms in _-a_ are listed below:

> _šarrat[ta]_ (present, OS or MH/MS) 'is divided', _šarratta(ti)_ (OH/NS), _šarrattat_ (MH/MS)
> _šannatta_ (MH/NS) 'hides'
> _arratat_ (NH) 'washed himself'
> _ḫarrattari_ (MH/MS) 'crushes', _ḫarratta_ (preterite, MH/MS)
> _pippattari_ (OH/NS) 'turns over'
> _ḫūi̯atta_ (NH) 'runs'
> _tarratta_ (OH/MS) 'is able', _tarrattat_ (NH)
> _zinnattari_ (OH/NS) 'is finished', _zinnat|t|at_ (NH)
> _duu̯arnattari_ (MH/MS) 'breaks'

It is striking that among the above nine examples the first six are _ḫi_-verbs. As for the remaining three examples, _tarra-_ is a medium tantum, while _zinna-_ and _duu̯arna-_ are _mi_-verbs. Furthermore, all the examples are attested in relatively late manuscripts; examples from manuscripts securely guaranteed as Old Hittite are lacking.

In this paper we shall seek to provide answers to the following two questions: (1) Why do the great majority of mediopassives in _-atta_ belong to _ḫi_-verbs? (2) Why are mediopassives in _-atta_ conspicuously attested from only a relatively late period of Hittite? Rather than proceed directly to the relevant forms in _-atta_ themselves, however, we shall turn first to an analysis of mediopassives in _-ta_ in §2, followed by a discussion of those in _-atta_ in §3.

2 Mediopassives in _-ta_

A morphological change comparable to the replacement of Hittite mediopassive 3rd sg. _-a_ by _-ta_ can be observed in the history of Sanskrit, where early Vedic has _śáye_ 'lies' (< _*-o-i_) in contrast to later Vedic _śéte_ (AB+, < _*-to-i_). The 3rd sg. _-e_ in the former is a descendant of the PIE 3rd sg. mediopassive ending _*-o_ enlarged by the deictic particle _*-i_. The original _*-o_ is probably also retained in Old Irish, where strong verbs like _beirid_ 'carries' usually have passives in _-a(i)r_ without _t_, as seen in _berair_ (absolute), _-berar_ (conjunct). The replacement of _*-o_ by _*-to_ is undoubtedly due to the influence of the 3rd sg. athematic active _*-t_, just as 1st sg. *-h_2e and 2nd sg. *-th_2e were assimilated to the active _*-m_ and _*-s_, respectively; e.g. Greek (Arcado-Cypriot) _-μαι_, _-οι_ (< _*-σοι_:

Arc. _κεῖοι_) _-τοι_. In the majority of the daughter languages the innovative _*-to_ spread to a large extent. In Greek, Latin, and Germanic, the older _*-o_ was completely ousted by the newer _*-to_. In Hittite, however, a significant number of mediopassives still belong to the _a_-class as represented by _eša_ 'sits', _kiša_ 'becomes', etc.[3]

There are some _a_-class 3rd sg. mediopassives that shifted to the _ta_-class in the historical period of Hittite. In addition to _tuḫša_, _tuḫšari_ → _tuḫḫušta_ that Watkins pointed out, at least five examples underwent the renewal _-a_ to _-ta_:

> _šuppii̯aḫḫati_ (OH) 'cleaned' → _šuppii̯aḫtari_ (MH/MS)
> _paḫša_ (MH/MS), _paḫšari_ (MH/MS) 'protects' → _paḫḫaštat_ (NH)
> _šiunii̯aḫḫati_ (OH/MS) 'was smitten (with disease)' → _šiunii̯aḫta_ (OH/NS)
> _šuppari_ (date indeterminable) 'sleeps' → _[š]uptari_ (OH/NS)
> _karša_ (NS) 'cuts' → _karaštari_ (OH/NS)

The above examples clearly show that the morphological change _-a_ → _-ta_ was still operating during the attested history of Hittite.[4] Of the above verbs, let us now consider the paradigms of _karš-_ (_mi_-verb) and _paḫš-_ (_ḫi_-verb).[5]

		present	preterite
active pres.	1st sg.	_kar-aš-mi_	_kar-šu-un_
	2nd sg.	_kar-aš-ti_[6]	
	3rd sg.	_kar-aš-zi_	_kar-aš-ta_
	1st pl.	_kar-šu-u-e-ni_	
	2nd pl.	_kar-aš-te-ni_	
	3rd pl.	_kar-ša-an-zi_	_kar-še-er_
m.-p. pres.	3rd sg.	_kar-ša_	
	3rd pl.	_kar-ša-an-ta-ri_	_kar-ša-an-ta-at_

[3] Some scholars (Oettinger 1976, Rix 1977, Kortlandt 1979 and Pooth 2000, among others) have suggested a "stative" category for the archaic ending _*-o_, which, according to them, shows the value of a static passive or oppositional intransitive with a functional difference from the nonstative ending _*-to_. This suggestion is hard to accept because many Hittite _a_-class middle verbs such as _ḫattari_ 'strikes', _paršii̯a_ 'breaks' and _ḫalzii̯a_ 'calls' are unambiguously telic and not stative.

[4] It is furthermore claimed in Yoshida 2007a:388–9 that since _-ta_ is overwhelmingly favored by preterite mediopassives in Hittite, many _ta_-class mediopassives were created after the affrication (_*-ti_ > _*-tsi_) that only occurred in the present tense at the pre-Hittite stage.

[5] The following paradigms do not include the forms with the renewed 3rd sg. mediopassive ending _-ta_. For the examples here and below I have relied on Neu 1968, Oettinger 1979, Yoshida 1990 and especially Kloekhorst 2008.

[6] _mi_-verbs with stem-final _-š_ do not have the regular 2nd sg. pres. ending _-ši_, but _-ti_ which encroached from the _ḫi_-conjugation in order to avoid parsing difficulties which would have been caused by expected double _-šš-_; cf. _ištamašti_ 'you hear', _idalau̯ešti_ 'you become bad'.

		present	preterite
active pres.	1st sg.	*pa-aḫ-ḫa-aš-ḫi*	*pa-aḫ-ḫa-[aš-ḫu-u]n*
	2nd sg.	*pa-aḫ-ḫa-aš-ti*	
	3rd sg.		*pa-aḫ-ḫa-aš-ta*
	1st pl.	*pa-aḫ-šu-e-ni*	
	2nd pl.	*pa-aḫ-ḫa-aš-te-ni*	
	3rd pl.	*pa-aḫ-ša-an-zi*	*pa-aḫ-šer*
m.-p. pres.	1st sg.	*pa-aḫ-ḫa-aš-ḫa*	*pa-aḫ-ḫa-aš-ḫa-at*
	2nd sg.	*pa-aḫ-ḫa-aš-ta*	
	3rd sg.	*pa-aḫ-ša(-ri)*	
	1st pl.	*pa-aḫ-šu-u̯a-aš-ta*	
	2nd pl.	*pa-aḫ-ḫa-aš-du-ma*	
	3rd pl.	*pa-a-aḫ-ša-an-ta*	

It is evident that in both paradigms the basic stems are constant, i.e. ***karš-*** and ***paḫš-***.[7] This situation is the same in the remaining four verbs: ***šuppii̯aḫḫ-*** (***ḫi***-verb, pres. 3rd sg. ***šuppii̯aḫḫi***, 3rd pl. ***šuppii̯aḫḫanzi***, pret. mediopassive 3rd sg. ***šuppii̯āḫḫati***), ***šiunii̯aḫḫ-*** (***ḫi***-verb, pret. 3rd sg. mediopassive ***šiunii̯aḫḫati***), ***šup-*** (***mi***-verb, pres. 3rd sg. [***šup***]***zi***, imper. 2nd pl. ***šupten***), and ***tuḫš-*** (***mi***-verb, pres. 3rd sg. ***tuḫuḫḫušzi***, 3rd pl. ***tuḫšanzi***, pret. 3rd sg. ***tuḫšet***, 1st pl. ***tuḫšumen***, imper. act. 2nd pl. ***tuḫšatt***[***en***], 3rd pl. ***tuḫšandu***). The renewal of ***-a*** to ***-ta*** is, put differently, a process by which the original 3rd sg. mediopassive in ***-a*** was more clearly characterized as such by inserting active 3rd sg. ***t*** between the stem and ending; hence, ***karaštari***, ***paḫḫaštat***, ***šuppii̯aḫtari***, ***šiunii̯aḫta***, ***šuptari***, and ***tuḫḫušta***.

While this morphological change is observed not only in ***mi***-verbs (e.g. ***karš-***) but also in ***ḫi***-verbs (***paḫš-***), a close examination shows that it is a feature conspicuously seen in ***mi***-verbs. As for mediopassives in ***-ta***, which are recorded as such from the beginning of their attestation and therefore lack the corresponding forms with ***-a***, a list of examples is available in Yoshida 2007a:392–3. Among the forty-six ***ta***-class mediopassives in this list, twenty-eight are ***mi***-verbs (***āš-*** 'remain', ***aššanu-/ašnu-*** 'arrange', ***ḫandai-*** 'arrange', ***ḫap-*** 'join', ***ḫarp-*** 'get separated', ***ḫulla-*** 'combat', ***ḫunik-*** 'smash', ***ii̯a-*** 'march', ***ištamaš-*** 'hear', ***ištarnink-*** 'make sick', ***karp-*** 'raise', ***luk(k)-*** 'dawn, get light', ***munnai-*** 'hide', ***nakkeš-*** 'become heavy', ***neku-*** 'get dark', ***nink-*** 'raise, lift', ***parkunu-*** 'clean, purify', ***šuu̯ai-*** 'fill', ***damaš-*** 'press', ***tarup(p)-*** 'unite, assemble', ***duddu-*** 'be led (?)', ***duu̯arnai-*** 'break, tear to pieces', ***up-*** 'go up', ***u̯arnu-*** 'burn', ***u̯aš(š)-/u̯eš(š)-*** 'clothe, be dressed', ***u̯alk-*** '?', ***u̯atku-*** 'jump, crack', and ***u̯eḫ-*** 'turn') whereas eleven are ***ḫi***-verbs (***au-/u-*** 'see', ÌR-***aḫḫ-***/ÌR-***naḫḫ-*** 'subjugate', ***išḫuu̯a-*** 'sprinkle, scatter', ***išii̯aḫḫ-*** 'announce', ***la-*** 'release', ***manii̯aḫḫ-*** 'deliver, hand over', ***mau-/mu-*** 'fall, drop', ***nakkii̯aḫḫ-*** 'make heavy', ***da-*** 'take', ***tameummaḫḫ-*** 'change, become different', and

[7] ***karaš-*** and ***paḫḫaš-*** are spelling variations due to intrinsic deficiencies in the cuneiform syllabary for writing Hittite.

tarna-[8] 'let, leave'). Four are media tantum (***ar-*** 'stand', ***arpu-*** 'be difficult', ***ki-*** 'lie', and ***kikkiš-*** 'become') and three are indeterminate due to lack of data (***ḫamenk-*** 'tie', ***ḫeš-/ḫaš-*** 'open', and ***zaḫ(ḫ)-*** 'beat').[9] This connection of the ***ta***-class mediopassive with ***mi***-verbs is totally predictable from the fact that the characterizing element ***t*** of the 3rd sg. ending is at home in the ***mi***-conjugation, not in the ***ḫi***-conjugation: the 3rd sg. mediopassive of ***mi***-verbs received a direct morphological influence from the corresponding active ending.

It is notable that some of the ***ḫi***-verbs associated with the ***ta***-class mediopassive came to have the characterizing ***t*** in the 3rd sg. active either within the prehistory or attested history of Hittite. The ***ḫi***-verb ***au-/u-*** has a 3rd sg. preterite mediopassive ***auštat*** characterized by the element ***t***, which must have been transferred from the 3rd sg. preterite ***aušta*** (< ****au-s-t***).[10] Likewise, the 3rd sg. present mediopassive ***mauštari*** and its preterite ***mauštat*** from ***mau-/mu-*** can be explained with a similar historical account: the ***t*** in ***mauštari*** and ***mauštat*** is attributable to the corresponding 3rd sg. active present ***maušzi*** (< ****-ti***) and preterite ***maušta***. The ***a***-class ***paḫša*** (MH/MS) and ***paḫšari*** (MH/MS) were later replaced by the ***ta***-class ***paḫḫaštat*** (NH), as observed earlier. It is conceivable to regard the new ***paḫḫaštat*** as having received morphological influence from the corresponding active ***paḫḫašta*** (preterite, NH). There are six factitive verbs in ***-aḫḫ-*** that have the 3rd sg. mediopassive in ***-ta***: ÌR-***aḫtat*** (NS), ***išii̯aḫtari*** (MH/NS), ***išii̯aḫtat*** (NS), ***manii̯aḫtari*** (OH/NS), ***nakkii̯aḫtat*** (NH), ***šiunii̯aḫta*** (OH/NS), and ***tameummaḫḫtat*** (NS). They are all recorded in Neo-Hittite compositions. In this connection Hoffner and Melchert (2008:217) state, "Factitive verbs in ***-aḫḫ-*** are inflected exclusively as ***ḫi***-verbs in OH (OS), but they are mostly inflected as ***mi***-verbs in the later language." Accordingly, it is not illegitimate to assume that the element ***t*** in these mediopassives was transferred from the corresponding 3rd sg. actives. In fact, ÌR-***aḫḫ-***/ÌR-***naḫḫ-***, ***išii̯aḫḫ-*** and ***manii̯aḫḫ-*** have innovated ***mi***-conjugation 3rd sg. actives, ÌR-***aḫta*** (NS), ÌR-***naḫta*** (NS), ***išii̯aḫta*** (NS), and ***manii̯aḫta*** (OH/NS), respectively, whereas poorly recorded ***nakkii̯aḫḫ-***, ***šiunii̯aḫḫ-***, and ***tameummaḫḫ-*** have no attestations of the active.

An analogous explanation can be given to ***dattat*** (NH), in which the ending-initial ***-tt-*** may have been secondarily transferred from the 3rd sg. active preterite ***datta*** (NS). But ***dattari*** (NS), ***tarnattari*** (OH/NS, MH/NS), and ***tarnattat*** (NS) do not have corresponding 3rd sg. actives with unmistakable ***-tt-***; the attested forms are ***dāi***, ***tarnāi*** (or ***tarnaizzi***), and ***tarnaš*** (or ***tarništa***), respectively. Accordingly, the following explanation seems more likely for ***dattari***, ***dattat***, ***tarnattari***, and ***tarnattat***. The stems ***dā-*** (< ****deh₃-***) and ***tarna-*** have a feature in common: they are both vocalic stems ending

[8] Whether ***tarna-*** is originally a nasal-infix present or not is a problem of no immediate relevance to the present discussion.

[9] This state of affairs probably led Friedrich (1960:77) and Kronasser (1956:203) to assume that the ***mi***-verbs and ***ḫi***-verbs were characterized by the 3rd sg. endings ***-ta*** and ***-a***, respectively.

[10] An irregular ***mi***-conjugation 3rd sg. present ***aušzi*** (< ****austi***) is explained as back-formed to its corresponding 3rd sg. preterite ***aušta***. For a detailed historical analysis of ***aušzi***, see Jasanoff 2003:120–1.

in *a* synchronically. Vowel contraction would be expected between the stem-final *a* and the 3rd sg. mediopassive ending *a*, resulting in a long *ā* (*dā*, *tarnā*). This long *ā*, whether later shortened under the influence of the short *a* of *eša* 'sits', *kiša* 'becomes', etc. or not, would be functionally opaque in that the boundary between the stem and ending would not be formally well marked. To repair this functionally unfavorable situation, the newly created ending *-ta* was added so that the segmentation between the stem and ending became clear.[11]

The 3rd sg. preterite mediopassives *lāttat* (NH) and *lattat* (NH) created from the vocalic stem *la-* can be explained in the same manner. However, this verb has the idiosyncratic 3rd sg. mediopassives *lāittari* (NH) and *laittari* (NH), which should, together with *išḫuu̯aittat* (MH/NS) from *išḫuu̯a-*, be regarded as medialized forms secondarily created from their corresponding 3rd sg. actives, i.e. *lāi* and *išḫuu̯ai*.[12]

Our discussions may be summarized as follows. The majority of the *ta*-class mediopassives treated so far were originally *mi*-verbs where the characterizing 3rd sg. *t* was available in the active (e.g. *karaštari* : *karašzi*, *karašta*) or *ḫi*-verbs which acquired the element *t* in the 3rd sg. active within the prehistory of Hittite (e.g. *auštat* : *aušzi*, *aušta*) or within the attested history of Hittite (e.g. *išii̯aḫtari*, *išii̯aḫtat* : *išii̯aḫta*). In addition to these two groups, some original *ḫi*-verbs came to have *ta*-class mediopassives due to secondary morphological processes (e.g. **tarna* → *tarnattari*, *tarnattat* and *lāi* → *laittari*). However, there still remains a group of *ta*-class mediopassives that are apparently resistant to any reasonable historical analysis. They are media tantum *arputta* (OH/NS), *arta* (OS), *kitta* (OS), and *kikkištari* (OH/NS). How these mediopassives came to acquire *t* in spite of the lack of corresponding actives is quite puzzling. This problem is not easy to solve and must be reserved for a separate future study.[13] On the other hand, *ḫi*-verbs that did not acquire *t* in the 3rd sg. active were characterized by the 3rd sg. mediopassive ending *-a* (e.g. *māi* 'grows' : *mii̯ari*, *mii̯ati*).

3 Mediopassives in *-atta*

As shown in §1, there are thirteen mediopassives which underwent the morphological change *-a* to *-atta* within the prehistory or attested history of Hittite. Among these

[11] It should be recalled that the renewal of *-a* to *-ta* is a process of inserting the active *t* after the stem for recharacterizing a relevant form as the third singular.

[12] There are additional examples which show medialization: *lagāittari* 'lies, is laid (low)' from **lākai*, *šii̯ettari* 'squeezes' from *šii̯e-* (cf. 3rd sg. preterite *šii̯ē[t]*) and *laḫuttari* 'pours' from *laḫu-* (cf. 2nd sg. present *laḫḫutti*, 1st pl. present *laḫu̯eni*). Detailed discussion of these medialized forms is found in Yoshida 2007b.

[13] As reasonably predicted, there are more media tantum in the *a*-class than in the *ta*-class, viz. *išduu̯ari* 'becomes evident', *ari* 'is warm', *aššāri* 'is loved', *kiša(ri)* 'becomes', *gištari* 'goes out', *duggāri* 'is visible', *urāni* 'burns', *zēi̯a(ri)* 'cooks'. The affinity of media tantum with the *a*-class becomes more conspicuous considering that *a*-class mediopassives are much smaller in number than *ta*-class mediopassives. Furthermore, *ḫattari* (OS) 'hits' and *šali[ga]* (OS) 'touches' are attested in Old Hittite original manuscripts, but their corresponding actives are mostly found in Neo-Hittite texts; cf. Kloekhorst 2008:331, 711. This fact suggests that *ḫatt-* and *šalik-* were originally media tantum, too.

thirteen examples, ten are *ḫi*-verbs (*ḫalzai-*, *ḫanna-*, *nai-/nē-*, *iškalla-*, *šarra-*, *arra-*, *ḫarra-*, *pippa-*, *ḫuu̯ai-/ḫui̯a-*, and *ḫalzai-*), one is a medium tantum (*tarra-*) and two are *mi*-verbs (*zinna-* and *duu̯arna-*). Furthermore, the mediopassives in *-atta* are recorded in relatively late manuscripts and examples in manuscripts securely guaranteed as Old Hittite are lacking. In this section we will attempt to answer the two questions raised earlier in §1: (1) Why do the great majority of mediopassives in *-atta* belong to *ḫi*-verbs? (2) Why are mediopassives in *-atta* conspicuously attested from only a relatively late period of Hittite?

Let us begin by concentrating our attention on the mediopassives with a root shape **CeRH-*, which comprise almost half of the relevant examples in *-atta*. They are *ḫanna-* (< $*h_3enh_2$-), *šarra-* (< $*serh_2$-), *šanna-* (< $*senh_2$-), *arra-* (< $*h_1erH$-), *ḫarra-* (< $*h_2\acute{e}rh_3$-), and *tarra-* (< $*t\acute{e}rh_2$-).[14] The constant sequence *-aRRa-* indicates that these verbs were originally characterized by *o*-grade in the strong stem and *e*-grade in the weak stem, i.e. the same ablaut type as observed in the paradigms of the root class *ḫi*-verb represented by *šakki* 'knows' ∼ *šekkanzi* and *āraš* 'arrived' ∼ *erir*.[15]

active pres.	3rd sg.	**CóRH-ei*	pret.	3rd sg.	**CóRH-e*
	3rd pl.	**CéRH-n̥ti*		3rd pl.	**CéRH-r̥s*
m.-p. pres.	3rd sg.	**CéRH-or*	pret.	3rd sg.	**CéRH-o*
	3rd pl.	**CéRH-n̥tor*		3rd pl.	**CéRH-n̥to*

This interpretation does not necessitate considering any morphological factors because intervocalic *-RH-* regularly became *-RR-* in Proto-Anatolian.[16] The following is the paradigm of *šarra-*, where only actually attested forms are shown.

active	sg.	1st		pl.	1st	*šarrau̯eni*
		2nd	*šarratti*		2nd	*šarratteni*
		3rd	*šārri*, *šarrāi*		3rd	*šarranzi*
m.-p.	sg.	1st		pl.	1st	
		2nd	*šarratta*		2nd	*šarradduma*
		3rd	*šarrat[ta]*, *šarrattari*		3rd	*šarranta*

It is clear that Hittite speakers came to perceive the synchronic stem as *šarra-* because *šarra-* was present throughout the paradigm. Within the internal history of Hittite,

[14] It should be noted that the last example *tarra-* is not a *ḫi*-verb, but a medium tantum.

[15] Kloekhorst (2012) claims that *ḫi*-verbs of the root class originally showed an *ó*/zero pattern, not an *ó*/*é* pattern. However, the *ó*/zero pattern seems a secondary development ascribable to a strong tendency to introduce zero-grade into the weak stem of the acrostatic paradigm, as shown by Melchert (2013).

[16] Cf. Oettinger 1979:549 and Melchert 1984:44 n. 91, 1994:79. It is not very clear whether PIE **e* became Hitt. *a* before *nH*, but facts are more easily accounted for by reconstructing the ablaut pattern **CóRH-* ∼ **CéRH-* rather than **CéRH-* ∼ **CR̥H-'* (> **CaRH-*). If we posit **CR̥H-ór* for the 3rd sg. present mediopassive, its predictable outcome would be *§CarHāri* as seen in *iškallāri* 'tears up', *išduu̯āri* 'becomes evident', etc.; cf. Yoshida 1990:95–8.

the original 3rd sg. active *šārri* (< *serh$_2$-ei) was replaced by the new *šarrāi* with the secondary thematic *-a-* which was extracted from 3rd pl. *-anzi* (cf. Jasanoff 2003:65). Once the remodeled *šarrāi* was introduced, all the present forms in the third person came to be characterized by *šarra* (*šarrāi*, *šarranzi*, *šarratta*, and *šarranta*). As a result, the final *a* of *šarra*, originally a part of the endings, was reinterpreted as a stem-final element. The generalization of the new stem *šarra-* is undeniable, because the phonologically expected *šarḫ-* (or *šaraḫ-*) in 2nd sg. *sórh$_2$-th$_2$ei, 1st pl. *sérh$_2$-u̯eni, 2nd pl. *sérh$_2$-teni, mediopassive 2nd sg. *sérh$_2$-th$_2$e(r), and 2nd pl. *sérh$_2$-dh(u)u̯e(r) was completely ousted from the paradigm. The pivotal position of the third person in paradigmatic leveling, sometimes referred to as Watkins' Law, is well known. There is, however, another way to explain how the new stem *šarra-* spread throughout the whole paradigm. It is conceivable that the Proto-Anatolian sequence *-rr- originating from the third person was analogically extended to the first and second persons in pre-Hittite before 3rd sg. *ḫi*-verbs in *-ai* were created. Afterwards, the secondary thematic *-a-* was generalized throughout the paradigm. The evidence that makes the second possibility more likely is 1st pl. *ḫarruu̯ani*.[17] If *-rr-* had spread as part of a Watkins'-Law reanalysis of the 3sg. *šarra* as a new stem, we would expect 1pl. §*ḫarrau̯ani*; but attested *ḫarruu̯ani*, which is simply *ḫarr-* + *-u̯ani*, shows that the allomorph *ḫarr-* spread by itself.[18]

The constant stem shape *(C)aRRa-* is essentially observed in the other five verbs with an original root shape *CeRH-:

> *ḫanna-*: active 1st sg. *ḫannaḫḫi*, 3rd sg. *ḫannai*, 3rd pl. *ḫannanzi*, mediopassive 2nd sg. *ḫannatta(ri)*, 3rd sg. *ḫannari*, pret. 3rd sg. *ḫannatat*, 2nd pl. *ḫannadu[ma]t*
>
> *šanna-*: active 1st sg. *šannaḫḫi*, 2nd sg. *šannatti*, 3rd sg. *šannāi*, 2nd pl. *šannatteni*, 3rd pl. *šannanzi*, mediopassive 3rd sg. *šannatta*
>
> *arra-*: active 1st sg. *ārraḫi*, 3rd sg. *ārri*, *arrai*, 3rd pl. *arranzi*, mediopassive 1st sg. *arraḫḫari*, pret. 3rd sg. *arrattat*
>
> *ḫarra-*: active 3rd sg. *ḫarrai*, 1st pl. *ḫarruu̯ani*, 3rd pl. *ḫarranzi*, mediopassive 3rd sg. *ḫarrattari*, pret. 3rd sg. *ḫarratta*
>
> *tarra-*: mediopassive 1st sg. *tarraḫḫari*, 2nd sg. *tarratta*, 3rd sg. *tarratta*, pret. 1st sg. *tarraḫḫat*, 3rd sg. *tarrattat*[19]

We have seen in §2 that the renewal *-a* to *-ta* was a process in which the active 3rd sg. *t* was inserted between the stem and the ending *-a* (e.g. *karša* → *karaštari*). In the case of the renewal of *-a* to *-atta*, on the other hand, the original ending *-a* came to be synchronically perceived as a stem-final element to which the renewed ending *-ta* was

[17]According to Friedrich, Kammenhuber and Hoffmann 2000:280, *ḫarruu̯ani* is recorded in a Middle Hittite manuscript.

[18]The *-u-* of *ḫarruu̯ani* is only graphic; an original *ḫarru- + *-u̯anni* would have become §*ḫarrumani*.

[19]Although the medium tantum *tarra-* lacked an active counterpart, the remodeled stem could be transferred to the first and second persons, following the behavior of other verbs with a shape *(C)aRRa-*.

added.[20] As far as the ending itself is concerned, the replacement of *-a* by *-atta* can be paraphrased as the morphological change -Ø to *-ta* (e.g. *ḫanna-ri* → *ḫanna-tat*). What has played a cardinal role in the reinterpretation of the original ending *-a* as a stem-final element is the emergence of the secondary thematic *-a-* which is basically characteristic of *ḫi*-verbs and not a feature observed in *mi*-verbs. The *mi*-verb *parḫ-* 'chase' also has a root shape *CeRH-. Unlike *ḫi*-verbs, however, it did not obtain the secondary thematic *-a-*, but generalized the stem *parḫ-* (active 1st sg. *paraḫmi*, 2nd sg. *paraḫši*, 3rd sg. *paraḫzi*, *parḫazi*, 3rd pl. *paraḫanzi*, *parḫanzi*, mediopassive 3rd sg. *parḫattari*, 3rd pl. *parḫanta*). The active 3rd pl., mediopassive 3rd sg. and 3rd pl. are secondary replacements for phonologically expected §*parranzi* (< *b^hérh$_2$-n̥ti), §*parra* (< *bhérh$_2$-or) and §*parranta* (< *b^hérh$_2$-n̥tor), respectively; cf. Yoshida 2007c:724.[21] These different behaviors between the *ḫi*-conjugation and *mi*-conjugation indicate that the locus for extending a new stem with the secondary thematic *-a-* was a 3rd sg. *ḫi*-verb in *-ai*. This explains why the *-a* to *-atta* transformation is so notable in *ḫi*-verbs.

The problem of the relatively late attestation of the mediopassives in *-atta* can hardly be separated from the fact that the replacement of 3rd sg. *ḫi*-verbs in *-i* by *-ai* was still underway during the attested history of Hittite, e.g. *kānki* 'hangs' vs. *gangai*, *u̯ašti* 'sins' vs. *u̯aštai* (cf. Jasanoff 2003:65). Because the renewal of *-a* by *-atta* occurred only when the original ending *-a* came to be perceived as part of the stem, the lack of mediopassives in *-atta* in Old Hittite manuscripts is a predictable phenomenon. Likewise, *ḫarruu̯ani* in Middle Hittite referred to above must reflect a state in which the generalization of the new stem in *ḫarra-* was incomplete. There is additional evidence for the late character of the mediopassives in *-atta*. Firstly, the morphological change *-a* to *-atta* was still operating in the attested history of Hittite as seen in §1 (e.g. *nēi̯a* → *nei̯attat*). Secondly, a great majority of remodeled mediopassives with *-atta* as well as those with *-ta* still preserve their original *a*-class status in imperative forms.[22] Thirdly, the ending *-atta* is characteristic of Hittite and is a feature not observed in Cuneiform Luvian, Lycian or Palaic. These three pieces of evidence confirm that the Hittite mediopassives with *-atta* were relatively late creations.

The rest of this section will be devoted to analyzing the remaining seven mediopassives with *-atta*. As for *iškallatta* (< *sk̥lH-ó-to, preterite) and *pippattari* (< *pí-pH-o-to-), only a small number of forms are attested in the rest of their paradigms. *iškalla-* has active 3rd sg. *iškallai*, 3rd pl. *iškallanzi*, pret. 1st sg. *iškallaḫḫun* and *pippa-* has active 3rd sg. *pippai*, 3rd pl. *pippanzi*, pret. 1st sg. *pippaḫḫun*. Significantly enough, they both

[20]This multivalence of the 3rd sg. *-a* was already recognized by Watkins (1969:82), who referred to its "Vieldeutigkeit."

[21]I am now inclined to the view that *parḫattari* should be read /parHtari/ and not /parHatari/ because of the lack of the thematic extension *-a-* in the paradigm. I would like to discuss this problem in detail elsewhere.

[22]For example, 3rd sg. imper. *nei̯aru* beside *nei̯attat* and *paḫšaru* beside *paḫaštat*. More examples are shown in Yoshida 2007a:385.

have a remodeled 3rd sg. in *-ai*. This means that their stems were perceived synchronically as *iškalla-* and *pippa-*, to which the ending *-ta* was later attached in the same manner as envisaged above. *nai-/nē-* and *ḫalzai-* show ablaut, although their apophonic patterns are different. In Old Hittite, their original ablaut patterns were quite faithfully preserved, e.g. 1st sg. *neḫḫi*, 2nd sg. *naitti*, 3rd sg. *nāi* < *nóiH-, mediopassive 3rd sg. *nēa*, 3rd pl. *nēanda* < *néiH- and 1st sg. *ḫalzeḫḫi*, 2nd sg. *ḫalzaitti*, 3rd sg. *ḫalzai* < *h_2l̥tó-i (?), mediopassive 3rd sg. *ḫalzii̯a* < *h_2l̥t-i̯ór (?). These apophonic patterns, however, were lost in Neo-Hittite, where both verbs took on a feature of *mi*-verbs in *-i̯a-*, e.g. 1st sg. *nei̯ami*, 2nd sg. *nei̯aši*, 3rd sg. *nei̯azzi*, 3rd pl. *nei̯anzi*, mediopassive 1st sg. *nei̯aḫari*, 2nd sg. *nei̯attari*, 3rd sg. *nei̯ari*, 3rd pl. *nei̯andari* and 1st sg. *ḫalzii̯ami*, 2nd sg. *ḫalzii̯aši*, 3rd pl. *ḫalzii̯anzi*, mediopassive 2nd sg. *ḫalzii̯attari*, 3rd sg. *ḫalzii̯ari*.[23] When the remodeled fixed stems *nei̯a-* and *ḫalzii̯a-* became available, *nei̯attat* and *ḫalzii̯atari*, both Neo-Hittite forms, were probably created. Ablaut is also observed in *ḫuu̯ai-/ḫui̯a-*, e.g. 3rd sg. *ḫuu̯āi* < *h_2u̯óh$_1$-i̯-ei (?), 3rd pl. *ḫui̯anzi* < *$h_2$uh$_1$-i̯-énti (?).[24] But as in the case of *nai-/nē-* and *ḫalzai-*, this verb came to inflect like *mi*-verbs in *-i̯a-* in Neo-Hittite times (cf. Kloekhorst 2008:367): e.g. 1st sg. *ḫūi̯ami*, 2nd sg. *ḫūi̯aši*, 3rd sg. *ḫūi̯azi*, 3rd pl. *ḫūi̯anzi*, mediopassive 3rd pl. *ḫui̯anda*. Here again, *-ta* was then attached to the fixed synchronic stem *ḫūi̯a-*; hence, the remodeled 3rd sg. mediopassive *ḫūi̯atta* in Neo-Hittite. The remaining two verbs *zinna-* (< *si-ne-h_1 or *ti-ne-h_1-[25]) and *duu̯arna-* (< *d^hu̯r̥-ne-h_1-) are *mi*-verbs with a nasal-infix, but in later Hittite both of them came to have the irregular *ḫi*-conjugation 3rd sg. *zinnāi* (NH) and *duu̯arnai* (MH/MS) characterized by the secondary thematic *-a-*, respectively. Their existence further led to the addition of *-ta* to the reinterpreted stems *zinna-* and *duu̯arna-*; hence, *zinnattari*, *zinnat[t]at* and *duu̯arnattari* attested in Neo-Hittite manuscripts.[26]

As we have discussed in detail in the preceding paragraphs, the renewal *-a* to *-atta* presupposes the existence of the secondary thematic *-a-*. There is no case in which mediopassives in *-atta* lack a corresponding 3rd sg. active in *-ai* or *-i̯az(z)i*.

4 Problematic examples in *-atta*

There are some mediopassives in *-atta* in which *a* before *-tta* cannot be straightforwardly interpreted. They are *arkatta* (OH/MS) 'mounts', *ḫinkatta* (OH/NS) 'bows', *taḫšattari* (NS) 'predicts', *u̯eḫatta* (MH/NS) 'turns', *u̯eḫattari* (MH/NS), *u̯eḫattat* (preterite, MH/NS), *appattat* (NS) 'seized', *šuppatta* (OH/NS) 'sleeps', and *lukkatta* (OS) 'get light', *lukatta* (NH), *lukkattati* (OH/NS). If not simply orthographic, these may be examples of the transformation *-a* to *-atta*. If simply orthographic, these may be examples of *-a* to *-tta*. Playing an important role in correctly judging these examples is our finding in §3 that the morphological change *-a* to *-atta* is observed only when the original ending *-a* had come to be synchronically reinterpreted as a stem-final element.

As for *arkatta*, *ḫinkatta*, and *taḫšattari*, there seems to be no way to judge whether the *a* before the ending *-tta* is real or orthographic, since their stems end in consonant clusters. But the following interpretation will be possible at least for *arkatta* and *ḫinkatta*. As Kloekhorst (2008:203) points out, *ark-* is originally a medium tantum and therefore lacks active forms.[27] This suggests that *arkatta* is to be read /arkta/ because the secondary thematic *-a-* was not available when it was remade from *a[r-g]a*.[28] Likewise, *ḫinkatta* should be read /hinkta/ because *ḫink-* is a *mi*-verb (1st sg. *ḫinikmi*, 3rd sg. *ḫinikzi*, 2nd pl. *ḫinkueni*, 3rd pl. *ḫinkanzi*), which lacks the secondary thematic *-a-*. Regarding *taḫšattari*, it is a hapax and there are no other forms attested in its paradigm. Accordingly, there is no linguistic information available to help us decide the correct reading.

The other examples, *u̯eḫatta*, *u̯eḫattari*, *u̯eḫattat*, *appattat*, *šuppattari* and *lukkatta*, *lukatta*, *lukkattati*, will receive the same interpretation as the one given to *arkatta* and *ḫinkatta*. But *u̯eḫ-*, *ep-*, *šup-*, and *luk-* are more interesting in that they provide us with forms with *-ta* (or *-a*) beside those with *-atta*, i.e. *u̯ēḫtari* (OH/NS), *u̯ēḫtat* (NS), *ēptat* (NS), *[š]uptari* (NS), *šuppari* (date indeterminable) and *lukta* (OS), *luktat* (OS). Watkins (1969:87) suggested that two morphological changes operated in the case of *u̯eḫ-*: *u̯eḫa → *u̯eḫta* and *u̯eḫa → *u̯eḫatta*. This suggestion, however, cannot be accepted because *u̯eḫ-* is a *mi*-verb where the thematic extension *-a-* is lacking (1st sg. *u̯ēḫmi*, 3rd sg. *u̯ēḫzi*, etc.). Therefore, this speaks for the reading /wehta/ for *u̯eḫatta*.[29] For the same reason, *appattat* and *šuppattari* should be read /aptat/ and /suptari/, respectively, because they are both *mi*-verbs (1st sg. *ēpmi*, 2nd sg. *ēpši*, 3rd sg. *ēpzi*, etc. and 3rd sg. *[šu]pzi*, 2nd pl. imperative *šupten*, etc.). As for *lukkatta*, Oettinger (1979:274–5) states that it does not stand for /lukta/ and assigns it to the same thematic group as *šarratta*, *ḫarratta*, etc. However, while *šarratta*, *ḫarratta*, etc. are unambiguously attested with the thematic extension *-a-* as shown in §3, *luk-* was originally a medium tantum which lacked it (cf. Kloekhorst 2008:531). Furthermore, despite the relatively late attestation of the other mediopassives in *-atta-*, both *lukta* and *lukkatta* (*luggatta*) are recorded in Old Hittite original manuscripts. Accordingly *lukkatta* should be considered a graphic variant of *lukta*.

[23] The spread of the pseudo suffix *-i̯a-* inside the paradigms is probably ascribed to its formal identity to the *i̯a* in the weak stem.

[24] Jasanoff (2003:93) assigns *ḫuu̯ai-/ḫui̯a-* to the "*dai*-type", to which the above-discussed *ḫalzai-* also belongs. The intervocalic *i* in *ḫui̯a-* is analogical to other verbs of this type such as *išpāi* 'becomes sated' : *išpii̯anzi* (cf. Melchert 1984:16 n. 31).

[25] Cf. Oettinger 1979:152 and Kloekhorst 2008:1037.

[26] In Proto-Anatolian these two nasal-infix verbs were characterized by an accented ending, i.e. *-n-C-ór. As for the problem of why they underwent final *-r* loss in their prehistory, see Yoshida 2011.

[27] The 3rd sg. *ārki* (MH/NS) is not old. It is important to note that §*ārkai* is not attested.

[28] As in *arta*, etc. discussed in §2, it remains puzzling why the renewal *-a* to *-ta* occurred in this medium tantum.

[29] The double *-tt-* in *u̯eḫatta* is probably due to an attempt to represent its unlenited quality.

Although the mediopassives discussed in this section have the sequence *-atta-* graphically, none of them has compelling evidence for the reality of the first *a* in *-atta-*.

5 Conclusion

The majority of the *ta*-class mediopassives were originally *mi*-verbs where the characterizing 3rd sg. *t* was available in the active (e.g. *karaštari* : *karašzi*, *karašta*) or *ḫi*-verbs which acquired the element *t* from the 3rd sg. active within the prehistory of Hittite (e.g. *auštat* : *aušzi*, *aušta*) or within the attested history of Hittite (e.g. *išii̯aḫtari*, *išii̯aḫtat* : *išii̯aḫta*). In addition to these two groups, some original *ḫi*-verbs came to have *ta*-class mediopassives due to secondary morphological processes (e.g. **tarna* → *tarnattari*, *tarnattat* and *lāi* → *laittari*). A small number of media tantum (e.g. *arta*) came to acquire *t* in spite of their lack of corresponding actives. On the other hand, *ḫi*-verbs that had not acquired *t* in the 3rd sg. active were characterized by the 3rd sg. mediopassive ending *-a* (e.g. *māi* 'grows' : *mii̯ari*, *mii̯ati*).

While the renewal *-a* to *-ta* was a process in which the active 3rd sg. *t* was inserted between the stem and the ending *-a* (e.g. *karša* → *karaštari*), what was relevant in the renewal of *-a* to *-atta* was the reinterpretation of the original ending *-a* as a stem-final element to which the renewed ending *-ta* was added (e.g. *ḫanna-ri* → *ḫanna-tat*). Playing a cardinal role in this reinterpretation was emergence of the secondary thematic *-a-* (e.g. 3rd sg. *ḫannai*) which is basically characteristic of *ḫi*-verbs and not a feature proper to *mi*-verbs. There is no case in which mediopassives in *-atta* lack a corresponding 3rd sg. active in *-ai*. This explains why the renewal of *-a* to *-atta* is conspicuous in *ḫi*-verbs. The relatively late attestation of the mediopassives in *-atta* is not surprising because the emergence of the secondary thematic *-a-* was still underway during the attested history of Hittite.

According to our finding that the renewal of *-a* by *-atta* is observed only when the original ending *-a* had come to be synchronically reinterpreted as a stem-final element, *-atta-* in the mediopassives created from *mi*-verbs such as *u̯eḫatta* should be read /-ta-/ due to the lack of the secondary thematic *-a-* in their paradigm.

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Index Verborum

This index mainly includes words and forms that receive discussion or analysis and is not meant to be exhaustive. English alphabetical order is followed except for Hittite, Sanskrit, and Greek.